



2010 Bias-Free Policing Report

Chief of Police Chet Epperson

Deputy Chief of Administration Lori Sweeney

**Prepared by Kim Binder & Becky Bartkowicz,
Crime Analysis Unit**

July 15, 2011

2010 Bias-Free Policing Executive Summary

According to the Northwestern University Center for Public Safety, the adjusted census benchmark for Rockford driving population is 72.9% Caucasian and 25.9% Minority drivers. A review of the 2010 traffic stop data for the City of Rockford shows that 9,378 traffic stops were made. There were 3,955 stops of Minority drivers, which is 42.17% of all recorded traffic stops resulting in the ratio for Rockford Minority drivers of 1.63. This indicates that a Minority driver has a .63 greater likelihood of being stopped by the Rockford Police Department.

Factors that may contribute to this disparity include the geographic location of stops, crime rate & police presence, and a discrepancy between the noted racial compositions of the City versus the driving population.

The city's average demographics do not reflect demographics of the reporting beats so it is imperative to look at the Beats individually by their defining characteristics, rather than making a generalization based on the city as a whole. Minority drivers are stopped more proportionally in beats 2, 4, and 6, where more resources are located due to higher crime rates and concentrated policing initiatives, than when looking at the city as a whole. The ratio of the percent of Minorities stopped to the percent population becomes more stable in those beats.

Also, in 2010, it can be seen that a majority of drivers stopped in Beats 8 and 9 were not residents of 8 and 9. In fact, approximately 22% were not listed as City of Rockford residents. This is likely attributed to the geography of the main veins of travel within the City. Beats 8 and 9 contain, among others, Riverside Blvd., Spring Creek, E State St, Broadway, and Harrison Ave, where there is high connectivity from the West to East Side. Many traveling from the West Side of town to the East Side for work, doctor appointments, community college, and shopping would most likely use these roads. As well, E State St and Riverside are roads with chain restaurants and commercial businesses as well as access to I-90. This simply indicates that the racial composition of the population of those beats may be quite different from that of the driving population.

Neither the "Reason for Stop" nor the "Outcome of Stop" showed any noteworthy difference between Caucasian and Minority drivers. The Rockford Police Department writes more citations than verbal warnings across both groups. The percent of citations given to both Caucasians and Minorities are very similar. There is no evidence in the numbers that would indicate disparity in the rate Caucasians are given citations compared to Minorities. Consent searches, however, are performed more often during minority stops. The disparity ratio of Minorities is 2.37.

Some disparity in numbers is present in 2010; data indicated an increase in the disparity of Minority stops in Rockford by .11. Additionally, for the reasons stated above, there are factors relating to the racial makeup of the individual police beats, crime rates & police presence, date of the last population census, and the racial composition of the driving population to be considered in reviewing traffic stop data for the City of Rockford.

INTRODUCTION

The 2010 Annual report on Rockford Police Department Traffic Stops summarizes data from 9,378 traffic stops. Data collection dates were from January 1, 2010, to December 31, 2010. In 2004, Illinois began collecting and assessing traffic stop data. This year is the seventh year data has been collected and analyzed.

In accordance to Illinois State Law, since January 1, 2004 (originally scheduled to end in 2007 but has been extended), whenever a State or Local law enforcement officer stops a vehicle for an alleged violation of the Illinois Vehicle Code, he or she shall record at least the following:

1. The name, address, gender, and the officer's subjective determination of the race of the person stopped; the person's race shall be selected from the following list: Caucasian, African-American, Hispanic, Native American/Alaskan native, or Asian/Pacific Islander.
2. The alleged traffic violation that led to the stop of the motorist.
3. The make and year of the vehicle stopped.
4. The date and time of stop.
5. The location of the traffic stop.
6. Whether or not a search contemporaneous to the stop was conducted of the vehicle, driver, passenger, or passengers; and if so, whether it was with consent or by other means.
7. The name and badge number of the issuing officer.

DEPARTMENT POLICY

The policy of the Rockford Police Department is to respect the civil rights of all persons and to prohibit and prevent any form of discrimination by members of the Department when any action taken on behalf of or by any member of this Department is motivated by race, color, ethnicity, age, gender, national origin, religion, economic status, cultural group, sexual orientation, or any other identifiable group. Specifically, members of the Rockford Police Department will not engage in any activities that are discriminatory or indicative of a practice of biased-based/racial profiling.



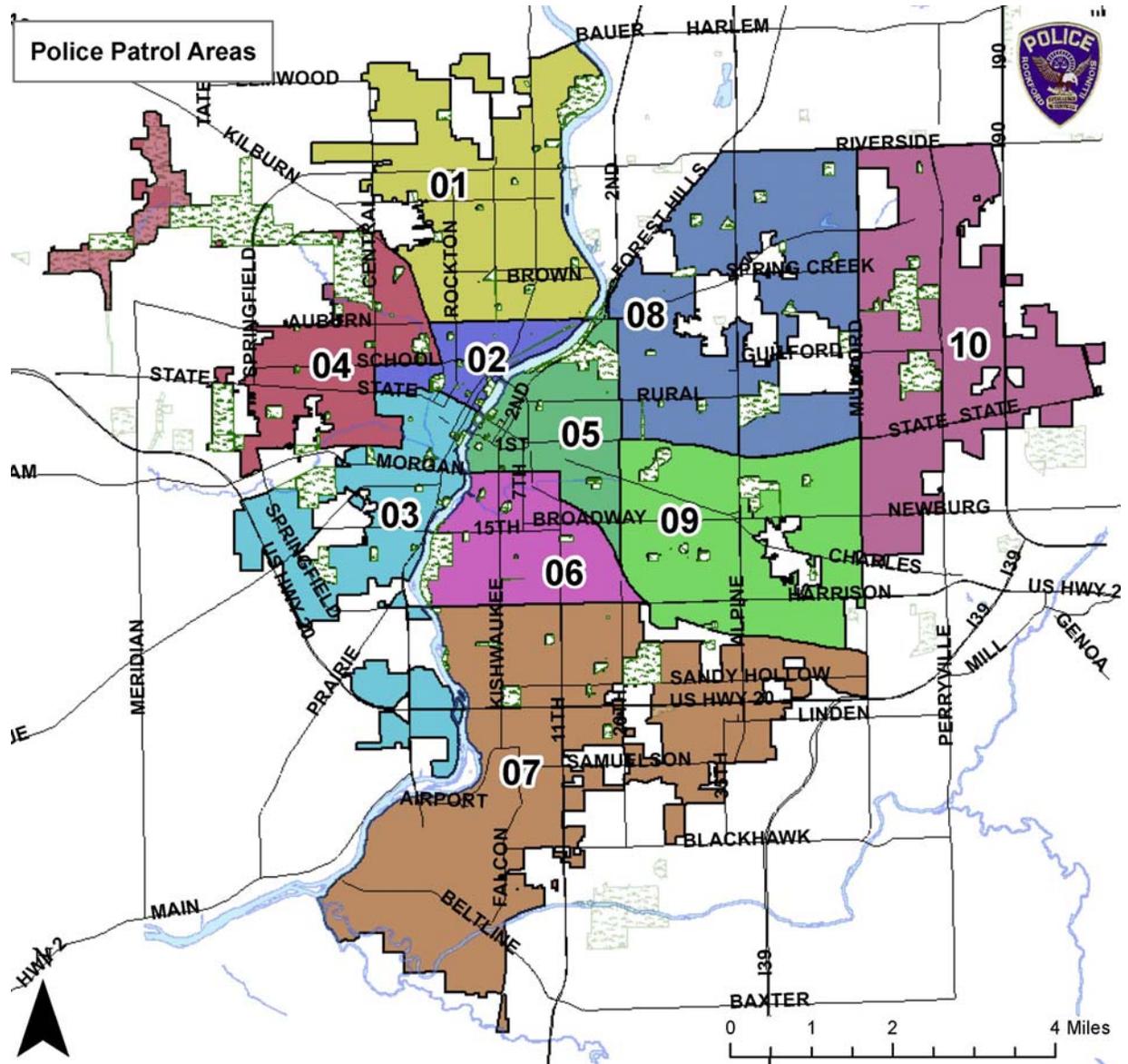
BENCHMARK

The Illinois Department of Transportation is responsible for collecting the data from police agencies and Northwestern University's Center for Public Safety is assisting in analysis of the data. The Rockford Police Department examined the data for the department by analyzing the stops, outcome of stop, and searches of Caucasian and Minority drivers. Northwestern will also examine the same data for all Police Departments in the State of Illinois. Northwestern University's Center for Public Safety has developed a benchmark for police agencies statewide based on the 2000 census. An "adjusted benchmark" was established for each city and county police agency. The benchmark population demographic consists of individuals 15 years or older who are eligible to drive. The adjusted census benchmark for Rockford driving population is:

72.9% Caucasian and 25.9% Minority drivers

This benchmark indicates that 72.9% of the Rockford eligible driving population (15 years and older) is Caucasian, while 25.9% is Minority.





BEAT ANALYSIS

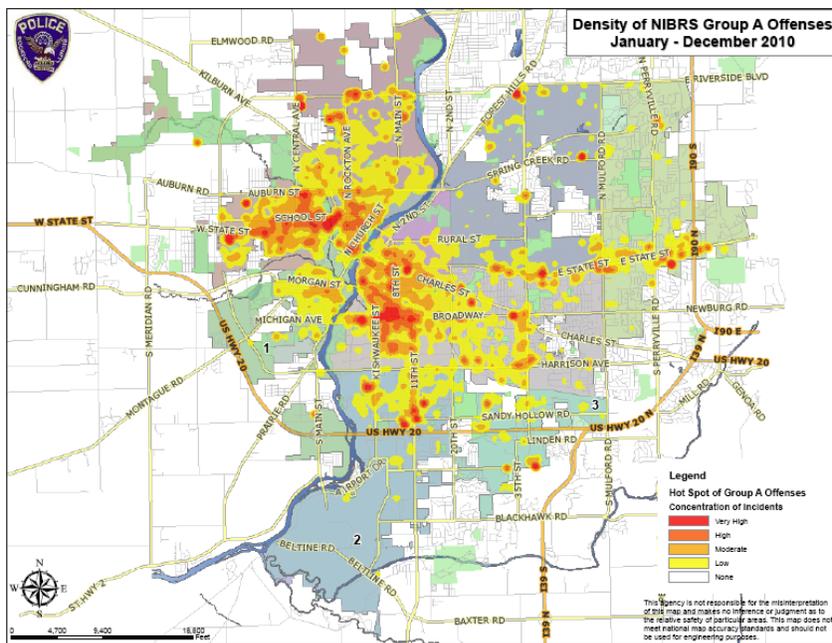
It is necessary to examine the demographic makeup of the city of Rockford. At first glance, it appears that there is significant disparity in the amount of traffic stops involving Minority drivers versus Caucasian drivers. A disparity score of “1” would indicate a perfect ratio of number of traffic stops, to the percent of Minority drivers in the population. The disparity index for Minority drivers in Rockford for 2010 is 1.63. This would indicate that a Minority driver has a .63 greater likelihood of being stopped by the Rockford Police Department.

To understand the relationship between the percent population of drivers in Rockford and the percent stopped by the Department, we must examine different variables that contribute to the disparity index. Each of our Patrol Zones is referred to as “Beats.” Each Beat has unique



characteristics. There is a noted difference in beat demographics, police allocation of resources, and geographic operators such as main road veins and population concentration.

One variable that contributes to police allocation of resources is the crime rate. With higher crime rates in specific areas, there were more concentrated police officers in those designated areas. In 2010 Patrol Beats Four and Six had the highest total criminal offense crime rate. (See Appendix 1) Total criminal offenses include the FBI’s National Incident-Based Reporting System (NIBRS) Group A and Group B Offenses. Group A offenses are the primary 46 offenses under 22 offense categories according to NIBRS. This includes offenses such as homicide, arson, assault, burglary, and drug/narcotic offenses. Group B offenses are the secondary 11 offense categories under NIBRS such as driving under the influence, disorderly conduct, and non-violent family offenses. There will be more police presence in these Beats, and subsequently a greater likelihood of being stopped.



Additional M3 Officers (Support Services officers who Map, Manage, & Measure High Crime Areas) concentrate efforts in these areas for crime reduction. Also, as of October of 2005 through present, Rockford’s first Weed & Seed area is located in sub beats 43 & 50. These two sub beats are contained by Beats 2 and 4. Rockford’s second Weed & Seed area is located in sub beats 160-164, & 175. These sub beats are contained by Beat 6. Starting in 2007 to present, there has been an

Alternative Drug Program (ADP) and a Seasonal Crime Initiative (SCI) started in Beats 2, 4, 5, & 6. More police presence in the area is due to a higher crime rate, housing concentration, citizen involvement, and police service.

An analysis recognizing the differences in the Beats would show the Minority drivers stopped and the estimated Minority population in the Beat of the stop becoming more proportional. In the beats with more enforcement, the disparity index is more proportional to the population. Breaking down traffic stops by patrol beat provides insight into the geographic factors involved in each area in addition to the city as a whole. (See Appendix 2)

Another geographic variable, which may contribute to the disparity in numbers, would be the main geographic roads that connect Rockford’s west side of the river to the east side of the river. Beats Eight and Nine had the greatest disparity in numbers. Beats 8 and 9 are also the areas that contain Riverside Blvd., Spring Creek, & East State Street. Other Beats contain these streets as well, but Beat 8 contains areas where there is high connectivity from West to East Side as well as



a large area of County Jurisdiction within the Patrol Area. From the North, N 2nd St connects Loves Park to Beat 8 by way of Spring Creek. Riverside Blvd. in Beat 8 is between Alpine Rd. and Mulford Rd. where a large portion of the city's medical services are located. Beats 8 and 9 also contain East State St. from near downtown through to Mulford Rd. This is where many strip malls, restaurants, and large shopping areas are located. A large part of the City's shopping malls and stores are on East State Street. To get to these places from the west side of the river, one is more likely to travel these roads. These streets may indicate why the disparity is the highest here. Only an estimated 30% of 2010 traffic stops conducted in Beats 8 and 9 were actual residents of this area.

*Resident determined by driver's address based on addresses that mapped.

*Beat 8 & 9 determined by Beat Location of Stop listed in data.



Table 1 - Rockford Traffic Stops

					% Change
Total Rockford Stops	2009	11,478	2010	9,378	-18.30%

	Caucasian Drivers			Minority Drivers		
	2009	2010	% Change	2009	2010	% Change
Stops Per Group	6,953	5,423	-22.00%	4,525	3,955	-12.60%
Percent of Stops	60.58%	57.83%	-2.75%	39.42%	42.17%	2.75%
Estimated Driving Population	72.90%	72.90%	0.00%	25.91%	25.91%	0.00%
Disparity Index	0.83	0.79	-0.04	1.52	1.63	0.11

**note: numbers rounded to 2 decimal places account for % differences.

**note that % change of a percent is not uniform; % increase/decrease noted by % difference, not % change.

**Disparity Index is not a % change, but a difference.

Table 2 - Reason For Stop

	Caucasian Drivers					Minority Drivers				
	2009	% of Total	2010	% of Total	% Change	2009	% of Total	2010	% of Total	% Change
Number of Stops	6,953	100.00%	5,423	100.00%	-22.00%	4,525	100.00%	3,955	100.00%	-12.60%
Moving Violations	5,129	73.77%	3836	70.74%	-25.21%	2930	64.75%	2500	63.21%	-14.68%
Equipment	757	10.89%	554	10.22%	-26.82%	755	16.69%	617	15.60%	-18.28%
License/Registration	1,067	15.35%	1033	19.05%	-3.19%	840	18.56%	838	21.19%	-0.24%

**note that % Change is the change in number of violations, not change in % of total stops

Table 3 - Stop Outcome Comparison

	Caucasian Drivers			Minority Drivers		
	2009	2010	% Change	2009	2010	% Change
Citation	5173	3940	-23.84%	3245	2769	-14.67%
percent	74.40%	72.85%	-1.75%	71.71%	70.01%	-1.70%
Verbal Warning	1780	1483	-16.69%	1280	1186	-7.34%
percent	25.80%	27.35%	1.75%	28.29%	29.99%	1.70%
Total	6953	5423	-22.00%	4525	3955	-12.60%

**note that % change of a percent is not uniform; % increase/decrease noted by % difference, not % change.

**note that due to rounding, some totals may not represent 100%



Table 4 - Consent Search Data

	2009			2010			% Change
Total Consent Searches	261			183			-29.89%
Total Stops	11,478			9,378			-18.30%
Percent of Stops	2.27%			1.95%			-0.32%
	Caucasian Drivers			Minority Drivers			
	2009	2010	% Change	2009	2010	% Change	
Total Stops	6953	5,423	-22.00%	4525	3,955	-12.60%	
# of Consent Searches	114	67	-41.23%	147	116	-21.09%	
percent	1.64%	1.24%	-0.40%	3.25%	2.93%	-0.32%	

**note that % change of a percent is not uniform; % increase/decrease noted by % difference, not % change.

	2009		2010		Change
Likelihood of Minority Drivers to Consent to Search	1.98	+1.98 (3.25/1.64)	2.37	+2.37 (2.93/1.24)	0.39

**Due to rounding, numbers calculated may vary.

Table 5 – Total Rockford Stops - 2004 - 2010



Total Rockford Stops	2004	2005	2006	2007	2008	2009	2010
	11,985	12,516	11,646	10,135	10,068	11,478	9,378

	Caucasian Drivers							Minority Drivers						
	2004	2005	2006	2007	2008	2009	2010	2004	2005	2006	2007	2008	2009	2010
Stops Per Group	7,294	7,373	6,367	5,672	6,059	6,953	5,423	4,691	5,143	5,279	4,463	4,009	4,525	3,955
Percent of Stops	60.86%	58.91%	54.67%	55.96%	60.18%	60.58%	57.83%	39.10%	41.09%	45.33%	44.04%	39.82%	39.42%	42.17%
Estimated Driving Population	72.90%	72.90%	72.90%	72.90%	72.90%	72.90%	72.90%	25.91%	25.91%	25.91%	25.91%	25.91%	25.91%	25.91%
Disparity Index	0.83	0.81	0.75	0.77	0.83	0.83	0.79	1.51	1.59	1.75	1.70	1.54	1.52	1.63

Table 6 – Estimated Driving Population by Beat

Beat	Caucasian Population		Minority Population		Total Population	
	Number	Percent	Number	Percent	Number	Percent
1	13,633	80.8%	3,235	19.2%	16,868	100.0%
2	5,476	48.7%	5,764	51.3%	11,240	100.0%
3	1,053	17.4%	4,994	82.5%	6,047	99.9%
4	1,538	29.9%	3,610	70.1%	5,148	100.0%
5	9,109	76.7%	2,764	23.2%	11,873	99.9%
6	4,661	63.6%	2,664	36.4%	7,325	100.0%
7	7,244	79.9%	1,818	20.2%	9,062	100.1%
8	18,020	89.5%	2,115	10.5%	20,135	100.0%
9	16,741	83.0%	3,420	17.0%	20,161	100.0%
10	7,269	86.7%	1,116	13.3%	8,385	100.0%

**note that all estimated population data from 2000 census; Beat population estimates based on Census Tracts.



TRAFFIC STOP DATA

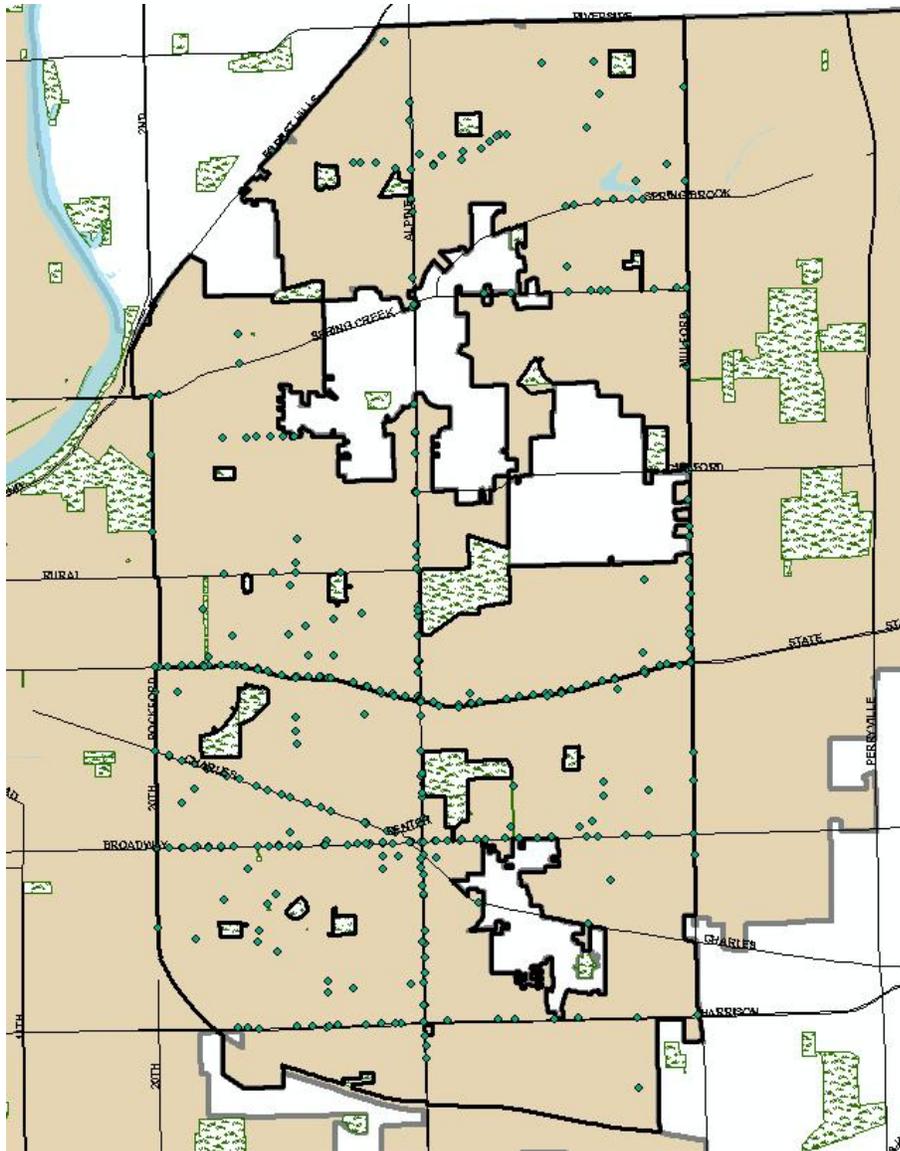
Table 1 is a general representation of the City of Rockford's Traffic Stop Data. This table is a compilation of all traffic stops recorded in the entire city to show the proportion of the driving population in relation to the drivers stopped. An index of 1.00 would be equal representation. A score lower than 1.00 would be under representation of the specified population. A score greater than 1.00 would indicate overrepresentation of the specified population.

In Rockford, there were 3,955 stops of Minority drivers, which is 42.17% of all recorded Traffic Stops. Minorities account for an estimated 25.91% of the city of Rockford's population. The ratio for Rockford Minority drivers is 1.63.

One factor that contributes to the disparity is geographic location of stops. Beats 4 & 6 not only have the highest crime rate and police concentration, but also have more balanced disparity index along with Beat 2. The ratio of the percent of Minorities stopped to the percent population becomes more stable in those beats. Considering departmental resources and Minority population by beat, Minority drivers are stopped more proportionally in beats 2, 4, & 6, where more resources are located, than when looking at the city as a whole. The city's overall demographics do not reflect demographics of the reporting beats. It is imperative to look at the Beats individually by their defining characteristics, rather than making a generalization based on the city as a whole. (Appendix 2)

Another geographic variable mentioned previously is the main geographic roads that connect Rockford's west side of the river to the east side of the river. Beats 8 and 9 had the greatest disparity in numbers of 2.78 & 2.03 (Appendix 2). Beats 8 and 9 are also the areas that contain Riverside Blvd., Spring Creek, & East State Street where there is high connectivity from West to East Side. Even Rural Street is used to commute from downtown and the East side of Rockford. Many traveling from the West Side of town to the East Side for work, schools, doctor appointments, community college, and shopping would most likely use these roads. Spring Creek has a flow of traffic that stops at every northwest main road on the East side of Rockford. East State and Riverside are the roads with chain restaurants, & commercial business, as well as access to I-90.





Using the Environmental Systems Research Institute (ESRI) mapping software, it can be seen that most of the Beats 8 and 9 stops conducted were on one of the main veins of travel. Alpine Road connects the North side of Rockford and even neighboring towns such as Loves Park to the East State Street Shopping district. The demographics for Beats 8 and 9 show a minority population of 10.5% and 17% (Table 6). It is clear that there may be other contributing factors to these stops that may influence the driving population. The 2000 Census estimates may not be an accurate representation of Beats 8 and 9. It is clear that outside residents take advantage of the easy travel within these

beats. In 2010, it can be seen that a majority of drivers stopped in Beats 8 and 9 were not residents of 8 and 9. In fact, approximately 22% were not listed as City of Rockford residents. With the amount of travel, it would not be currently possible to note the number of Caucasians or Minorities that drive in this area on any given day with the given parameters of the study. It should be noted that the population estimates are based on 2000 census data. Population demographics change over time. Population will also shift based on the season as well. Christmas shopping and school seasons will change the amount of people on the road and in the shopping districts.

Map showing the driver address of those stopped in Rockford Patrol Areas 8 & 9:



Although some disparity in numbers is present, the analysis is complex. In 2010, we recorded approximately 2,100 less drivers than 2009; an 18.30% decrease. With this decrease, there are fewer stops and less data to assess.

Data in 2010 indicated an increase in the disparity of Minority stops in Rockford by .11. There is a concern in analyzing the specific beats within the City of Rockford to ensure accuracy in the reflection of the population. One factor may be that Beat Six has a higher percent Minority driving population and Beat Four has a significantly higher Minority driving population. Beginning in 2006 through present, Beats Four and Six were locations where special enforcement details were implemented. This may include saturation in geographical areas such as Weed & Seed, the Alternative Drug Program (ADP), and the Seasonal Crime Initiative. This also may increase police presence in neighborhoods. With this enforcement continuing through 2010, this may have had an effect on the Minority drivers stopped.

Another concern for 2010 is the distance it is from the 2000 U.S. Census. Cities and demographics change over the years. There has been increased development in the City of Rockford as well as neighboring communities. With growth comes change, and it should be noted that the population provided from the U.S. Census is data from 2000.

We will continue to monitor and assess the driver stops based on the benchmark issued from Northwestern University. With access to continuous data analysis in 2011, the Rockford Police Department will further track the data as it comes in.

Additional effort will be made to analyze individual officer traffic stops. This is a fairly complex undertaking by the Department. Research on the best ways to analyze individual traffic data continues. There are many factors that contribute to an individual's work in traffic stops. Some of the mitigating factors could be beat location, demographics, population, crime rate, Weed & Seed Official Enforcement Zones, tactical operations, officer assignment, and individual productivity.

The Department will continue its annual cultural diversity training and periodic review of the department's policy of bias-free policing. Awareness of culture, difference, and personal accountability will be key factors in having a Department dedicated to the community it serves, and enhancing community relationships.

The long-term goals of this study are to fully understand and investigate how the Traffic Stop Data relates to the operational mission of the Department. In 2006, the Rockford Police Department implemented a NetRMS computer-based Records Management system to gather the most recent and accurate data for the department. Now with multiple years of data, comparative information is available. We are also recognized as an official National Incident-Based Reporting System (NIBRS) agency reporting statistics to aid in more qualitatively functional data for crime analysis. Capturing better data with improved methods of analysis will help in the future with Traffic Stop Reporting. Moving forward, the Department expects to learn much from the data, interdepartmental discussion and its relationship with the community. Racial profiling is a very complex issue from a community and Departmental standpoint. In the years to come, the



Rockford Police Department will continue to be diligent about research, analysis, and accountability of the Department.



Appendix 1

2010 Offenses by Beat						
Beat	Group A Offenses		Group B Offenses		Total Criminal Offenses	
	Number	Rate	Number	Rate	Number	Rate
1	2,308	106.5	1,345	62.1	3,653	168.6
2	2,025	131.9	1,959	127.6	3,984	259.5
3	1,491	178.3	1,154	138.0	2,645	316.3
4	2,920	392.5	2,207	296.7	5,127	689.2
5	2,044	133.3	1,606	104.8	3,650	238.1
6	2,977	296.7	2,252	224.4	5,229	521.1
7	2,189	186.2	1,167	99.3	3,356	285.4
8	1,556	63.3	965	39.3	2,521	102.6
9	2,263	90.0	1,232	49.0	3,495	138.9
10	1,326	127.2	636	61.0	1,962	188.2



Appendix 2

Beat	Caucasian								Minorities								Total Stops by Beat			
	2009				2010				2009				2010				2009		2010	
	# Stopped	% Stopped	% Pop	Disparity	# Stopped	% Stopped	% Pop	Disparity	# Stopped	% Stopped	% Pop	Disparity	# Stopped	% Stopped	% Pop	Disparity	# Stopped	% Stopped	# Stopped	% Stopped
1	954	67.6%	80.8%	0.84	872	69.1%	80.8%	0.86	458	32.44%	19.2%	1.69	390	30.90%	19.2%	1.61	1412	12.3%	1262	13.5%
2	676	45.2%	48.7%	0.93	680	43.5%	48.7%	0.89	818	54.8%	51.3%	1.07	882	56.5%	51.3%	1.10	1494	13.0%	1562	16.7%
3	204	41.0%	17.4%	2.35	217	43.8%	17.4%	2.52	294	59.0%	82.5%	0.72	278	56.2%	82.5%	0.68	498	4.3%	495	5.3%
4	240	30.3%	29.9%	1.01	344	33.7%	29.9%	1.13	552	69.7%	70.1%	0.99	677	66.3%	70.1%	0.95	792	6.9%	1021	10.9%
5	1143	62.0%	76.7%	0.81	739	61.1%	76.7%	0.80	702	38.0%	23.2%	1.64	470	38.9%	23.2%	1.68	1845	16.1%	1209	12.9%
6	930	58.9%	63.6%	0.93	567	54.2%	63.6%	0.85	649	41.1%	36.4%	1.13	480	45.8%	36.4%	1.26	1579	13.8%	1047	11.2%
7	454	65.1%	79.9%	0.82	303	69.2%	79.9%	0.87	243	34.9%	20.2%	1.73	135	30.8%	20.2%	1.53	697	6.1%	438	4.7%
8	694	75.0%	89.5%	0.84	530	70.8%	89.5%	0.79	231	25.0%	10.5%	2.38	219	29.2%	10.5%	2.78	925	8.1%	749	8.0%
9	834	70.1%	83.0%	0.84	543	65.5%	83.0%	0.79	356	29.9%	17.0%	1.76	286	34.5%	17.0%	2.03	1190	10.4%	829	8.8%
10	824	78.8%	86.7%	0.91	628	82.0%	86.7%	0.95	222	21.2%	13.3%	1.60	138	18.0%	13.3%	1.35	1046	9.1%	766	8.2%
City	6953	60.6%	72.9%	0.83	5423	57.8%	72.9%	0.79	4525	39.4%	25.9%	1.52	3955	42.2%	25.9%	1.63	11478	100.0%	9378	100.0%

