

# **Report on the Field Operations Division**

RALEIGH, NORTH CAROLINA



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September 25, 2015

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## **1. INTRODUCTION**

The Matrix Consulting Group was retained by the City of Raleigh to conduct an Analysis of the Field Operations Division. The following report presents the results of the study. This study, which began at the beginning of 2015, was designed to provide an assessment of current and projected patrol staffing levels, the current beat structure and allocation of existing patrol staffing as well as to evaluate opportunities to improve the management of field operations.

The Matrix Consulting Group is a management consulting firm established in 2002 that focuses entirely on public sector analytical services and specializes in public safety services. The staff of the Matrix Consulting Group have provided analytical services to public safety agencies for over 30 years and have conducted over 250 individual studies of law enforcement services during their careers.

Upon reaching the concluding point of the study, the project team has assembled this final report, which summarizes our findings, conclusions, and recommendations where appropriate. This Introduction and Executive Summary to the report provide a synopsis of the scope of work and context for the study, project methodology, and a summary of the alternatives examined.

### **1. STUDY BACKGROUND AND SCOPE OF WORK.**

The Raleigh Police Department is committed to providing high quality, community-oriented policing services to the City it serves. Because the City is in the middle of a transformation – it is growing and changing rapidly, the Police Department has taken this opportunity to assess demands for service and evaluate the best use of

patrol resources in the City. Population pressures will increase in the future, including increasing urbanization and densities and with that new or different needs for field services.

Because law enforcement staffing in general, and patrol staffing in particular, is an essential element in establishing a safe community, this study provides a baseline assessment of the Field Operations Division. The purpose of the study, then, was to:

- Examine service levels and workloads handled by staff in the Division.
- Document, evaluate and provide metrics for the handling workloads as well as 'best management practices' in managing patrol services, staff and workloads;
- Develop recommended staffing levels for the six (6) patrol districts;
- Within patrol, develop recommendations for the number of staff:
  - In each patrol district
  - The number needed by shift
  - Alternatives shift schedules
  - An assessment of the effectiveness of its beat structure
  - Alternative approaches for handling field services.
- Evaluation of appropriate supervisory and command structures in the Field Services Division.

To understand and evaluate these issues, the Matrix Consulting Group was asked to accomplish the following in this study of the Field Operations Division:

- Develop data for use in the analysis of field workloads, deployments, and design of the beat and district structure based on:
  - Calls for service.
  - Officer proactivity.
  - Officer availability and scheduling.



- The geographical distribution of field personnel in the City.
- How field personnel are managed while on duty.
- Solicit employee feedback on current patrol staffing levels, deployments and approaches to operations management. The project team also conducted field interviews through ride-alongs with Police Officers and Sergeants in each of the six Districts.
- Assess community perceptions and priorities through the use of an on line survey.
- Examine the current and projected population, geography, current deployments, staffing levels, officer workloads, calls for service demands on patrol, proactive patrol time, response times, crime data, industry standards/best practices and the need for flexible units to respond to ongoing crime trends or events.
- Throughout this process the project team met with staff in the Police Department to review facts, findings, issues and assumptions and recommendations. We had two review groups in this study:
  - A “Core Team” comprised of the Chief, senior management in the Field Operations Division and other technical resources in the Department.
  - The six District Commanders.

This report provides the results of this analysis of patrol staffing and deployment in Raleigh.

## **2. ASSUMPTIONS UTILIZED IN DEVELOPING ALTERNATIVES**

The ensuing chapters of this report detail the results of the project team’s assessment of the current patrol staffing and beat structure in Raleigh, as well as several alternatives evaluated. These analyses are based on the following:

- Statistical analysis of call for service workloads and major crime distributed throughout the City.
- The need to ensure that officers in the field have an adequate amount of time to be proactive as well as to handle tasks associated with calls for service and other responsibilities.

- Balancing field capabilities as much as possible so that some beats and officers assigned to those beats have somewhat equal workloads and proactive capabilities.
- The results of the input received from employees through interviews and surveys of patrol staff and the community.

The resulting analysis summarized in this report, then, was tailored to Raleigh, its unique needs and service expectations.

### **3. KEY ISSUES IN THE STUDY**

The project team in its evaluation of the Field Operations Division identified many positive aspects as well as key issues which needed to be addressed in this assessment of the Field Operations Division. Key findings and conclusions included:

- 
- Patrol staff meet most performance management / dashboard indicators. Authorized staffing and workload levels result in a very high level of proactive enforcement capability at over 50% and is fairly consistently at that level overall in all Districts.
  - Analysis of the use of proactive time in Patrol in Raleigh demonstrates that it is used to generate activity by police officers.
  - Patrol beats / response zone boundaries have not been changed in some time leading to great variations in the distribution of workload.
  - The practice of assigning staff to fixed Districts leads to great variations in staff availability among Districts because of position vacancies.
  - While coordination between Districts and between Districts and specialized units, it does not appear to be based on a plan to address enforcement goals in the City.
  - The commitment to Intelligence Led Policing hold great promise for the problem solving efforts of the Police Department in the City.
  - The community policing program suffers from lack of centralized oversight and goal setting; District led efforts vary greatly in focus.
  - The watch command system in Raleigh is sound structurally but potentially varies from Captain to Captain with respect to District commanders.
  - There is the potential to divert more calls for service to alternative response mechanisms.
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These strengths and potential improvement opportunities provide a foundation upon which this analysis was based.

#### 4. RESULTS OF THE ANALYSIS OF THE FIELD OPERATIONS DIVISION

The table, below, summarizes the recommendations made in this report. The report itself needs to be reviewed for the detailed analysis and development of the recommendations.

Functional Area	Recommendation
Patrol	Based on 2014 data, the number of Police Officers filled in Patrol at the time of the analysis is appropriate to handle calls for service and have very high proactive capabilities.
	While patrol proactive capabilities are high in Raleigh and that time is utilized by Officers to generate activities in the community, it needs to be better directed through analysis and by first line supervisors.
	Implement a more flexible approach to balancing filled and vacant positions against the workload demands and proactivity needs of the City overall.
	Conduct a reevaluation and redesign of the patrol beat structure every five years in order to maximize the impact of staffing resources and better adapt to current trends of crime and disorder in the community.
	Establish a process for feedback and input to be generated from all levels of the Field Operations Division on the boundaries of the new beat system. After an open process of feedback, review, and revisions, adopt the proposed new beat system.
	Upon adoption of the proposed new beat structure, make the following changes to the number of patrol officers assigned to each district, amounting to a net change of zero (0) positions overall: <ul style="list-style-type: none"><li>– Downtown District: Increase the patrol officer assignments by 16.</li><li>– North District: Decrease patrol officer assignments by 19.</li><li>– Northeast District: Increase patrol officer assignments by 2.</li><li>– Northwest District: Increase patrol officer assignments by 4.</li><li>– Southeast District: Decrease patrol officer assignments by 2.</li><li>– Southwest District: Decrease patrol officer assignments by 1.</li></ul>

Functional Area	Recommendation
	Every six months, review officer workload levels in each district and transfer staff as needed when significant disparities are identified.
Operations Management	Make changes to shift rotation schedules on an individual basis as necessary to maximize the percentage of court attendance that occurs on days that officers are on-duty.
	Develop a plan to stagger training schedules in order to allow for all in-service training to be conducted while on-duty.
	Establish a multi-departmental task force committee in order to develop strategies to address public safety concerns in the downtown entertainment district, meeting bimonthly.
	In entertainment districts, use crime prevention officers to meet with venue owners and staff to perform safety inspections, develop sound management plans, and collaboratively identify solutions to problems impacting the safety and risk of incident at each establishment.
	Flexibly deploy community police officers within the Glenwood South and Downtown District areas in a foot patrol capacity during expected times of high call for service activity.
	Make no changes to the number of officers assigned to policing transit areas at this time, and periodically review activity trends to determine if additional officers will be needed in the future to accommodate expansions in transit-related patrol workload.
	The Chief should initiate a process to make the roles of supervisors (Sergeants) and managers (Lieutenants and Captains) more distinct and consistent.
	Retain the number of Lieutenants but only within the context of role changes needed to distinguish their positions from field Sergeants.
	Spans of control are appropriate for field supervisors in patrol. However, strengthen the first line supervisory capabilities of Sergeants through training and redefining the roles of Lieutenants.

Functional Area	Recommendation
<b>Community Policing</b>	<p>Reflecting the goals of the Chief of Police and consistent with the City's developing strategic plan the community oriented policing program needs to address:</p> <ul style="list-style-type: none"> <li>• A statement of the value of working with the community and groups.</li> <li>• A focus on working with vulnerable populations and youth.</li> <li>• Defining what needs to be the goals for the City overall.</li> <li>• Defining what are appropriate goals for each District.</li> </ul> <p><i>This community policing plan should be developed internally but it should include input both internally as well as externally.</i></p> <hr/> <p>Create a Lieutenant position to coordinate the Citywide program, ensuring that both Citywide and District initiatives are created staff are accountable for meeting these. This Lieutenant would be a resource to District community policing staff not their direct supervisor.</p> <hr/> <p>Ensure that District Community Policing Sergeants, in conjunction with crime analysis, have a structure for community policing projects as well as providing structure to the proactive activities of beat patrol officers.</p> <hr/> <p>Once a community policing plan has been developed, transfer unfilled patrol officer positions to Community Policing roles.</p> <hr/> <p>In addition, directed by the Raleigh Intelligence Center (RIC) in conjunction with Watch and District Commanders, create a flexibly deployed team of officers within or between Districts to address varying problems in the City. At least some of the new officers authorized for the next fiscal year could be dedicated to a Citywide flexibly deployed unit. The unit would also need a Sergeant.</p>

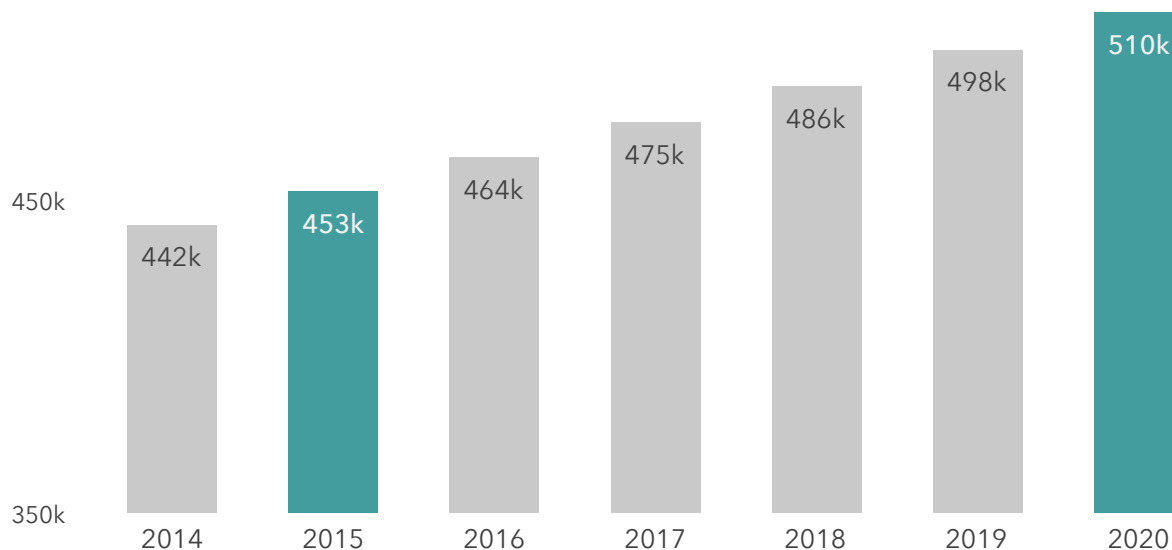
## 5. PROJECTIONS

Patrol staffing needs will continue to increase in Raleigh with population and field workload growth. The following table and chart project patrol staff needed for every year up through 2020:

**Projected Population and Staffing Changes, 2014 – 2020**

Category	2014	2015	2016	2017	2018	2019	2020
<b>Est. Population</b>	442,167	452,837	463,765	474,957	486,418	498,157	510,175
<b>Calls for Service</b>	165,484	169,477	173,567	177,756	182,045	186,439	190,936
<b>Workload Hours</b>	210,921	216,011	221,224	226,562	232,030	237,629	243,362
<b>Patrol Officers Needed</b>	<b>310</b>	<b>318</b>	<b>326</b>	<b>333</b>	<b>341</b>	<b>350</b>	<b>358</b>

**Projected Population Growth, 2014 – 2020**



Overall, patrol officer staffing needs will grow by approximately 15.5% over the next six years. Given that the growth in workload will occur disproportionately in different areas of the City, it underscores the importance of regularly adjusting staffing levels by district in order to achieve balance balanced workloads for patrol officers.

\* \* \*

Again, as stated earlier, the main body of the report should be reviewed for the facts, discussion and analysis which provide the basis for each of the recommendations summarized above.

## **2. ANALYSIS OF PATROL WORKLOAD**

The following sections provide a detailed analysis of the workload handled by patrol units in the field, forming the basis of the proactivity and proactivity and staffing calculations featured in later sections of the report.

### **1. COMMUNITY-GENERATED CALLS FOR SERVICE**

#### **(1) Methodology**

Our project team has calculated the community-generated workload of the department by analyzing computer aided dispatch (CAD) data covering the entire calendar year of 2014. For incidents to be included in these calculations, the following conditions needed to be met:

- The incident must have been unique.
- The incident must have occurred within the specified time period, with a call creation time stamp signifying this.
- The incident must have involved at least one Raleigh Police Department patrol officer (using a full list of the unit codes used by the department).
- The incident must have been originally initiated by the community (911 or non-emergency telephone source; as well as a valid call type corresponding to community-generated activity).
- There must be no major data irregularities/issues with the incident's record that would prevent sufficient analysis.

Overall, there were 165,484 unique incidents that met each of the conditions listed above, comprising what the study refers to as the community-generated calls for service workload handled by patrol units.

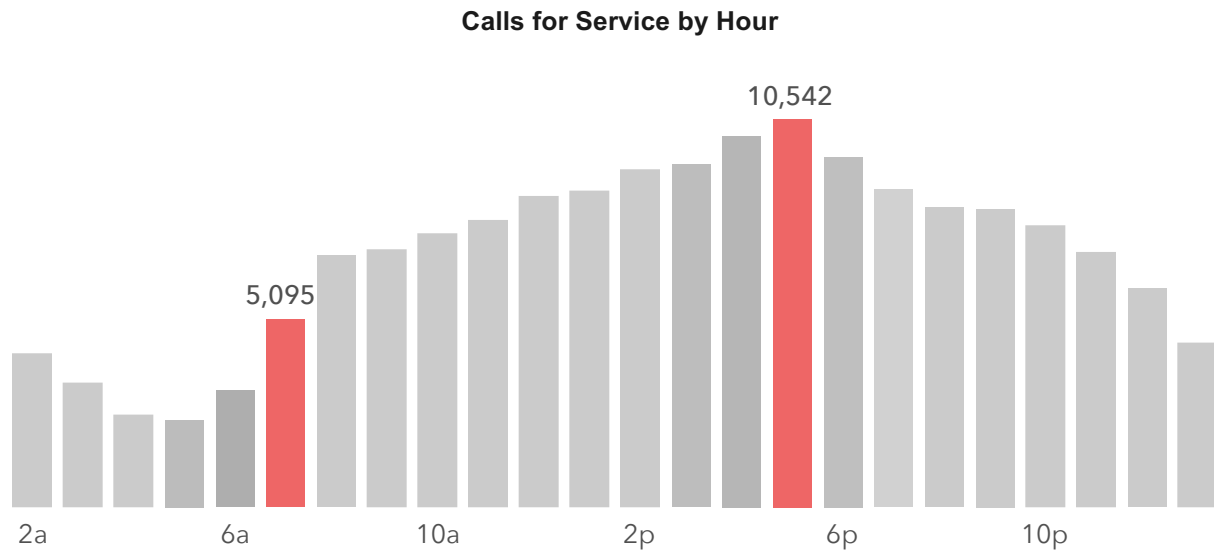
## (2) Overview of Calls for Service

The following table presents the distribution of community-generated calls for service by hour and weekday starting at 0200, banding together rows in four-hour blocks of time:

**Calls for Service by Hour and Weekday**

Hour	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Overall
<b>0200</b>	996	419	383	473	465	546	921	<b>4,203</b>
<b>0300</b>	785	353	373	391	327	438	749	<b>3,416</b>
<b>0400</b>	506	293	270	308	295	336	506	<b>2,514</b>
<b>0500</b>	361	316	309	325	300	386	373	<b>2,370</b>
<b>0600</b>	337	472	494	483	441	493	452	<b>3,172</b>
<b>0700</b>	479	797	861	807	761	800	590	<b>5,095</b>
<b>0800</b>	608	1,082	1,050	1,069	1,030	1,111	894	<b>6,844</b>
<b>0900</b>	788	1,044	1,033	1,060	1,036	1,032	1,007	<b>7,000</b>
<b>1000</b>	924	1,082	1,067	1,096	1,030	1,079	1,184	<b>7,462</b>
<b>1100</b>	1,007	1,118	1,092	1,151	1,048	1,198	1,205	<b>7,819</b>
<b>1200</b>	1,065	1,234	1,123	1,235	1,162	1,288	1,324	<b>8,431</b>
<b>1300</b>	1,102	1,195	1,160	1,332	1,112	1,281	1,386	<b>8,568</b>
<b>1400</b>	1,195	1,350	1,286	1,325	1,263	1,420	1,344	<b>9,183</b>
<b>1500</b>	1,176	1,359	1,300	1,368	1,305	1,446	1,357	<b>9,311</b>
<b>1600</b>	1,188	1,479	1,503	1,529	1,433	1,549	1,402	<b>10,083</b>
<b>1700</b>	1,180	1,578	1,657	1,625	1,534	1,652	1,316	<b>10,542</b>
<b>1800</b>	1,171	1,389	1,390	1,373	1,372	1,445	1,367	<b>9,507</b>
<b>1900</b>	1,127	1,263	1,197	1,191	1,223	1,336	1,291	<b>8,628</b>
<b>2000</b>	1,126	1,183	1,112	1,118	1,164	1,200	1,245	<b>8,148</b>
<b>2100</b>	1,068	1,082	1,059	1,124	1,103	1,287	1,384	<b>8,107</b>
<b>2200</b>	945	960	1,021	1,038	1,030	1,362	1,336	<b>7,692</b>
<b>2300</b>	787	831	812	851	926	1,312	1,429	<b>6,948</b>
<b>0000</b>	1,326	625	670	706	659	793	1,169	<b>5,948</b>
<b>0100</b>	1,001	497	500	557	528	570	840	<b>4,493</b>
<b>Total</b>	<b>22,248</b>	<b>23,001</b>	<b>22,722</b>	<b>23,535</b>	<b>22,547</b>	<b>25,360</b>	<b>26,071</b>	<b>165,484</b>





Calls for service totals display fewer peaks and valleys by time of day than what is typically true for most departments. Although workload drops significantly in the early morning hours, variation is not extensive across different hours of the day. There are multiple possible reasons for this, and the implications of these workload patterns will be explored further when we examine how the number of workload hours – as opposed to the number of incidents – is discussed, as well as in the analysis of shift schedule alternatives.

The table below shows the most common types of calls for service handled by the Raleigh Police Department, using the incident type definitions used by the CAD system:

### Calls for Service by Most Common Type

Incident Category	# of CFS	% of Total
ACCIDENT-VEHICLE/DAM	12,425	7.5%
911 HANGUP CALL	10,425	6.3%
44/NON-RESIDENTIAL	8,684	5.2%
DISTURBANCE	8,647	5.2%
ALARM-BURGLAR/RESIDE	7,783	4.7%
TALK WITH OFFICER	7,734	4.7%
SUSPICIOUS PERSON	5,392	3.3%
MENTAL COMMITMENT	4,929	3.0%
DOMESTIC	4,851	2.9%
REQUEST FOR SERVICE	4,679	2.8%
<i>Subtotal – All Other Types</i>	<i>89,935</i>	<i>54.3%</i>
<b>Total</b>	<b>165,484</b>	<b>100.0%</b>

- Mental commitments, which are also commonly referred to as “paper transfers”, are a significant workload handled– primarily in the Southeast District.
- With an average handling time of over 80 minutes, mental commitment calls occupy patrol resources for extended periods of time.
- Around 28.6 911 hang-up call incidents occur each day – far higher than the norm, likely due to the area code of the Raleigh.

### (3) Average Time Required to Handle Calls for Service

The table below details the number of community-generated calls for service by priority level, as well as the average handling time (HT) for each level:

#### Calls for Service and Average Handling Time (HT) by Priority Level

Priority Level	# of CFS	% of Total	Avg. HT
0	7,182	4.3%	39.2
1	33,793	20.4%	41.3
2	55,062	33.3%	42.0
3	32,915	19.9%	41.6
4	8,437	5.1%	40.4
5	16,677	10.1%	42.0
6	519	0.3%	39.2
7	144	0.1%	51.7
8	2,938	1.8%	40.5
9	7,817	4.7%	42.8
<b>Overall</b>	<b>165,484</b>	<b>100.0%</b>	<b>41.5</b>

In the experience of the project team, average handling times for similar jurisdictions typically fall between 30 and 45 minutes. Although Raleigh is at the high end of this range, 41.3 minutes per call is reasonable overall average.

#### **(4) Primary Unit Workload**

The table below displays the total number of calls at each four-hour block, as well as the average and total workload associated with the call for the primary responding unit:

**Primary Unit Call for Service Handling Time (HT)**

Time Block	# of CFS	Avg. HT	Total HT Hours
0200 – 0600	12,503	41.4	8,637
0600 – 1000	22,111	41.1	15,281
1000 – 1200	32,280	41.8	22,497
1200 – 1800	39,119	41.2	26,923
1800 – 2200	34,390	41.4	23,771
2200 – 0200	25,081	41.1	17,181
<b>Total</b>	<b>165,484</b>	<b>41.3</b>	<b>114,290</b>

Because average primary unit handling time remains virtually unchanged throughout the day for primary units, total workload hours scale almost directly with call volume.

#### **(5) Backup Unit Responses**

The table below shows the distribution of backup units responses by hour and weekday to community-generated calls for service, displaying the data in four-hour time blocks beginning at 0200:

**Backup Unit Call for Service Handling Time (HT)**

Time Block	# of Units	Avg. HT	Total HT Hours
0200 – 0600	9,707	30.8	5,060
0600 – 1000	15,404	30.0	7,869
1000 – 1200	21,704	30.1	10,913
1200 – 1800	21,358	29.8	10,640
1800 – 2200	20,568	32.3	11,095
2200 – 0200	19,110	30.5	9,684
<b>Total</b>	<b>107,851</b>	<b>30.6</b>	<b>55,260</b>

Backup units generally do not spend as much time handling calls in comparison with the primary unit, as reflected by the CAD data analysis. In 2014, the average handling time for backup units in Raleigh was approximately 30.74 minutes, or about 74.2% the average handling time of primary units. It should be noted that only officers were included in these calculations, nor were officers not functioning in a patrol role.

**(6) Report Writing Workload**

Officers spend a significant portion of their time writing reports in connection to incidents, comprising an additional component of the community-generated workload generated by the city. The project team estimates that reports are written in relation to one out of every three calls for service, which equates to about 41,371 reports written over the course of 2014. To provide an approximation of the time spent on these activities, given a significant portion of it is not included within the duration of a CAD incident, our project team uses an estimate factor based on our experience working with law enforcement agencies, which assumes that reports take an average of around 45 minutes to complete. The number of reports written by officers, however, has been tied to the number of calls for service at each hour block.

Under these assumptions, RPD patrol officers spent a total of approximately 31,028 hours in 2014 writing reports relating to calls for service.

## **(7) Combined Patrol Unit Workload**

In order to develop an understanding of the impact of the city's community-generated workload on the availability of patrol units, primary and backup unit handling time hours have been combined. Additional time is been added to the handling time of each call for service to account for time spent completing reports and other assignments outside of the recorded duration of the event in the CAD system. The amount of time added to each call is an estimate based on the experience of the project team, factoring in an additional 45 minutes for one out of every three calls for service, or about 14.9 minutes per call.

The table below displays the results of these calculations, including the handling time for both primary and backup units, as well as the estimated time spent by officers to complete reports and other assignments:

**Combined Hours of Community-Generated Workload**

Hour	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Total
0200	1,432	541	533	675	804	751	1,310	6,045
0300	959	496	474	553	503	589	952	4,525
0400	653	405	337	417	419	451	646	3,327
0500	426	424	410	405	357	423	480	2,926
0600	381	517	536	585	492	534	546	3,590
0700	581	1,063	1,100	1,070	1,097	1,070	745	6,726
0800	790	1,344	1,334	1,477	1,457	1,459	1,232	9,094
0900	1,109	1,233	1,444	1,390	1,357	1,380	1,354	9,267
1000	1,194	1,357	1,519	1,530	1,316	1,478	1,610	10,004
1100	1,259	1,384	1,611	1,417	1,289	1,544	1,436	9,940
1200	1,326	1,573	1,628	1,557	1,410	1,542	1,636	10,672
1300	1,282	1,415	1,608	1,721	1,495	1,686	1,655	10,863
1400	1,335	1,593	1,704	1,501	1,648	1,693	1,668	11,142
1500	1,364	1,639	1,609	1,747	1,699	1,790	1,641	11,487
1600	1,453	1,675	1,876	1,923	1,584	1,971	1,792	12,275
1700	1,339	1,860	1,874	1,915	1,783	2,054	1,612	12,437
1800	1,424	1,618	1,682	1,721	1,593	1,680	1,568	11,287
1900	1,390	1,553	1,453	1,495	1,540	1,819	1,662	10,912
2000	1,421	1,558	1,449	1,738	1,369	1,482	1,668	10,685
2100	1,228	1,503	1,381	1,631	1,442	1,710	1,683	10,579
2200	1,209	1,261	1,358	1,359	1,306	1,804	1,674	9,971
2300	988	990	1,017	1,208	1,250	1,564	1,799	8,815
0000	1,688	830	944	974	904	1,137	1,486	7,962
0100	1,393	646	806	813	688	913	1,130	6,388
<b>Total</b>	<b>27,624</b>	<b>28,478</b>	<b>29,687</b>	<b>30,822</b>	<b>28,802</b>	<b>32,524</b>	<b>32,985</b>	<b>210,919</b>

- On average, patrol officers handle approximately 577.9 hours of workload per day.
- Activity levels largely plateau over the 12-hour period from 1400 to 2200, which combine for about 62.7% of the total annual workload.
- There is somewhat significant variation in workload levels by day, with Friday and Saturday each representing workload increases of at least 7-8% above the daily average.
- The increase in workload for Friday and Saturday mainly occurs in the nighttime hours – for instance, with early morning hours on those days (Saturday and Sunday between 0100 and 0300) featuring in many cases two to three times the workload on other days.

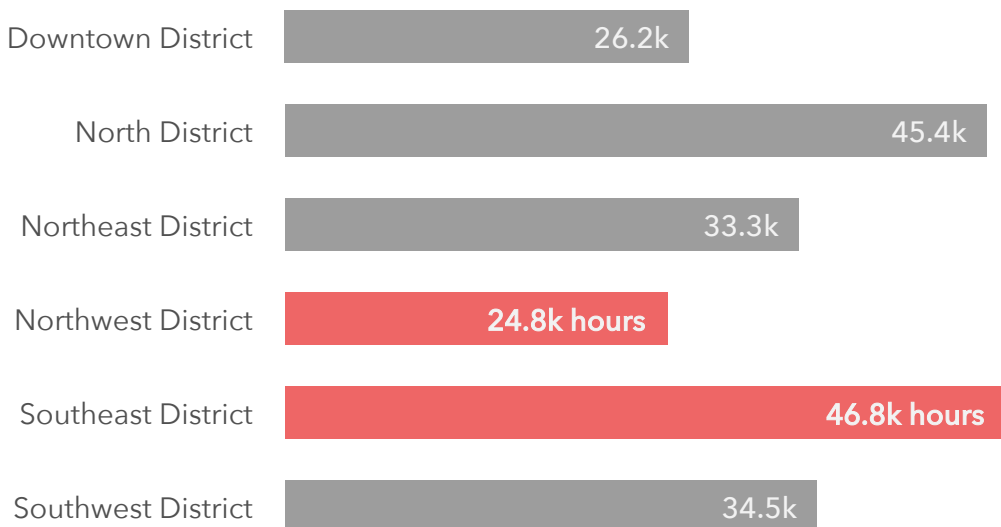
Overall, the patterns in community-generated workload by time of day, while not unusual, differ noticeably from what is typically the case in cities as large as Raleigh. The data indicates that total workload changes are relatively minor from the early afternoon hours through to the early morning, with the least active hour in that time period having less than 25% less workload than the hour with the highest levels of activity. To this point, it is evident that the period of the day featuring significantly reduced activity levels is fairly short, lasting only about six hours.

#### **(8) Distribution of Workload by District**

The following table displays the aggregated community-generated workload of each district:

**Combined Patrol Unit Workload and Handling Time (HT) Factors**

<b>District</b>	<b>Total Primary HT</b>	<b>Total Backup HT</b>	<b>Est. Report Time</b>	<b>Added from Other/Ext.</b>	<b>Total Workload</b>
<b>Downtown District</b>	13,484	7,710	4,895	84	26,174
<b>North District</b>	24,585	11,858	8,920	84	45,447
<b>Northeast District</b>	18,726	7,642	6,814	84	33,265
<b>Northwest District</b>	13,352	6,557	4,815	84	24,808
<b>Southeast District</b>	25,344	12,260	9,075	84	46,764
<b>Southwest District</b>	18,760	8,782	6,836	84	34,462
<b>Other/External</b>	38	451	14	<i>(distributed)</i>	<i>(distributed)</i>
<b>Total</b>	<b>114,290</b>	<b>55,260</b>	<b>41,371</b>	<b>504</b>	<b>210,919</b>



Although there appears to be extensive variation in workload between the six RPD districts, this is not necessarily an issue, as they have different staffing levels. It is interesting, however, that handling time and backup rate differ only by a minor amount, indicating a uniform level of service is provided throughout the city. While this could, at least in part, be the result of the watch commander system used by the department, that finding cannot be reached from this data alone.



## 2. OFFICER-INITIATED INCIDENTS

### (1) Officer-Initiated Incident Totals

The following pair of tables show the number of officer-initiated incidents by hour and weekday, as well as overall by district:

**Officer-Initiated Incidents by Hour and Weekday**

Hour	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Overall
0200	1,318	937	1,059	1,111	1,251	1,175	1,460	8,311
0300	1,041	715	872	733	898	825	1,031	6,115
0400	618	518	590	486	572	505	636	3,925
0500	293	278	341	293	295	274	324	2,098
0600	382	427	416	329	436	366	463	2,819
0700	719	974	1,165	846	1,003	936	997	6,640
0800	1,254	1,368	1,532	1,185	1,405	1,391	1,643	9,778
0900	1,806	1,307	1,558	1,179	1,349	1,381	1,832	10,412
1000	1,715	1,227	1,493	1,172	1,175	1,279	1,693	9,754
1100	1,311	1,121	1,239	1,057	1,054	1,135	1,466	8,383
1200	1,041	1,009	1,032	903	923	963	1,039	6,910
1300	983	1,086	1,077	993	945	918	1,123	7,125
1400	1,008	1,153	1,115	1,020	947	1,016	1,006	7,265
1500	889	1,141	1,030	993	954	944	984	6,935
1600	877	940	887	877	732	876	870	6,059
1700	553	567	505	504	506	529	599	3,763
1800	601	584	594	565	572	509	601	4,026
1900	1,046	992	1,042	909	1,001	933	993	6,916
2000	1,235	1,211	1,280	1,316	1,091	1,294	1,353	8,780
2100	1,232	1,198	1,295	1,313	1,155	1,238	1,311	8,742
2200	1,257	1,406	1,336	1,404	1,222	1,365	1,371	9,361
2300	1,224	1,349	1,330	1,395	1,283	1,312	1,284	9,177
0000	1,157	1,095	1,151	1,187	1,345	1,206	1,313	8,454
0100	1,272	1,094	1,130	1,232	1,317	1,212	1,328	8,585
<b>Total</b>	<b>24,832</b>	<b>23,697</b>	<b>25,069</b>	<b>23,002</b>	<b>23,431</b>	<b>23,582</b>	<b>26,720</b>	<b>170,333</b>

### Officer-Initiated Incidents by District

District	# of Incidents	% of Total
Downtown District	27,887	16.4%
North District	35,116	20.6%
Northeast District	17,155	10.1%
Northwest District	23,465	13.8%
Southeast District	34,843	20.5%
Southwest District	29,018	17.0%
Other/External	2,849	1.7%
<b>Total</b>	<b>170,333</b>	<b>100.0%</b>

In 2014, the total number of officer-initiated incidents completed by patrol officers was 103% the total of community-generated calls for service. This is a very high ratio, and it is particularly interesting how consistent the performance is across the day, with patterns in hourly totals largely resembling calls for service activity. Officer-Initiated incidents totals, while not a complete picture of the proactivity of a department, nonetheless represent an important indicator of this activity.

## (2) Most Common Officer-Initiated Incident Types

The table below outlines the ten most common types of events initiated by RPD patrol officers in 2014:

### Most Common Types of Officer-Initiated Incidents

Type	# of Incidents
TRAFFIC STOP	65,679
SECURITY CHECK	30,254
WARRANT SERVICE	21,158
FOLLOW-UP INVESTIGATION	8,134
SPECIAL ASSIGNMENT	6,113
SUSPICIOUS PERSON	4,531
FOOT PATROL	4,218
SUSPICIOUS VEHICLE	4,123
DRUG LAW VIOLATION	2,602
CHECK IN WITH PD	1,949
<i>All Other Types</i>	21,572
<b>Total</b>	<b>170,333</b>

Traffic stops are by far the most common type of event initiated by officers, with RPD patrol units completing an average of approximately 180 stops per day. Foot patrols are also conducted frequently at a rate of approximately 11.6 times per day, indicating that community policing is a high priority in officer-initiated activity.

Overall, for every community-generated call for service handled by the Raleigh Police Department, patrol officers generate more officer-initiated events than in many other similarly sized agencies. This is a very positive finding for a number of reasons, as it demonstrates that the proactive time available to officers is being utilized in an active manner.

While a portion of the number can be explained diligently recording certain categories of activity in the CAD system – such as security checks and foot patrols – the totals demonstrate a strong focus on officer proactivity. Although many departments do not regularly record some of these event types in CAD data, the project team considers this to be a best practice for law enforcement agencies. By emphasizing accountability for performing traffic enforcement (including proactive efforts towards DWIs), preventative area checks, and other types of self-initiated policing, officers are held to a higher standard given the increased measurability of how officers spend their proactive time.

### **3. ANALYSIS OF PATROL PROACTIVITY AND STAFFING NEEDS**

This section of the report examines the staff utilization and staffing needs of Field Services in light of the workload and service level considerations examined in the previous section of the report.

#### **1. OVERVIEW OF METHODOLOGY**

##### **(1) Introduction**

Effective police agencies examine patrol staffing needs through multiple perspectives in order to provide a level of service that includes community-focused policing as a core philosophy. These considerations encompass a number of different factors, including the minimum number of staff that must be available to maintain officer safety, the ability of officers to respond to high priority calls for service in a timely manner, and the amount of time officers have available to conduct proactive patrol and community policing activities. In order for a police agency to provide an optimum level of service to its community, it is important that patrol units spend a significant proportion of their time in the field on tasks other than handling community-generated workload events. For this to be possible, patrol shifts must be staffed at adequate levels.

Completing an analysis of current levels of officer proactivity is essential to the process of identifying staffing needs. More basic methods of benchmarking staffing needs, such as taking the ratio of sworn FTEs per capita, do not account for the uniqueness of each department and community, and can provide misleading answers as a result. By contrast, the resulting metric of proactivity analysis is valuable because it is relative to the unique situation of each department and community, taking into

account not only the workload generated by the community, but how that workload is managed and responded to.

## **(2) Calculation Process for Committed and Proactive Time**

Proactive time is calculated through an analytical approach that examines the community-generated workload handled by patrol units, as well as the current staffing levels of the division, in order to produce a realistic estimation of the department's staffing needs at its targeted service levels. The data required to complete the analysis has been obtained from the computer aided dispatch system and other statistical data maintained by the Raleigh Police Department. A number of assumptions have been made in the approach in order to provide an accurate model of the Field Operations Division. The following dot points provide a summary of these factors:

- Proactivity is calculated by subtracting the time spent by units handling community-generated workload from the total actual availability of patrol officers.
- While proactivity needs depend on the community served by the department, between 40% and 60% of the actual time worked in the field by patrol units should be used to handle community-generated workload. The remaining portion of time should be used to conduct proactive patrol and community policing.
- The estimated availability of patrol units is calculated by factoring in all leave, training, overtime, time spent performing administrative functions, and every other impact to actual officer availability from the base authorized staffing figures.
- Proactivity analysis focused only on patrol officers; the activity and staffing of all other functions provided by the department – including all investigative, support, management, and special services – are not included in any of the calculations.
- In some cases, data is not available to exactly represent every aspect of the department covered by the proactivity model. Time spent writing reports when not assigned to a call, for example, based on project team experience.
- The percentage of proactive time available to patrol units is understood as an overall average that varies constantly from day to day.

Overall, the goal of the analysis is to accurately model the ability of patrol units to be proactive given current staffing allocations, and should not be considered a performance measure of how the proactive time is being used. Instead, the analysis ties the workload completed by patrol units to staffing levels in order to provide the opportunity for effective proactive policing.

### (3) **Data and Assumptions Used to Conduct Staffing and Workload Analysis**

The proactivity analysis model used by our project team uses a number of data elements in order to accurately represent the staffing levels and workload of the department. The following points outline each of the metrics used to construct this model, providing a description and summary of how calculations are developed:

- **Number of Community-Generated Calls for Service** – Data obtained from an export of CAD data covering calendar year 2014 that has been analyzed and filtered in order to determine the number and characteristics of all community-generated activity handled by patrol officers.
- **Primary Unit Handling Time** – The time used by the primary unit to handle a community-generated call for service, including time spent traveling to the scene of the incident and the duration of on-scene time. In the experience of the project team, the overall average handling time of a department is typically between 30 and 42 minutes. Agencies falling outside of this range may either not be using the time of patrol officers effectively or are not accurately capturing work data.
- **Number of Backup Unit Responses** – The total number and rate of backup units responding to community-generated calls for service. This number often varies based on the severity of the call, as well as the geographical density of the area being served. Agencies located in urban areas may have a higher percentage of calls that are responded to by multiple units in comparison with less densely populated areas. Raleigh Police Department averages approximately 0.74 backup units per call.
- **Backup Unit Handling Time** – The handling time of any backup units responding to community-generated calls for service, including both travel and on-scene times, and is calculated using the same process as for primary units. The average handling time for backup units in Raleigh is **30.6** minutes, which represents about 119% of the overall average for primary units.

- **Number of Reports Written** – The total number of reports and other assignments relating to calls for service that have been written by patrol units, estimated at one report written for every three calls for service.
- **Report Writing Time** – Based on the number of community-generated calls for service, this number constitutes an important factor of the total workload handled by patrol units in responding to calls for service. It is often the case that officers are cleared from a call in the CAD system before they complete any assignments or other tasks relating to a call. As a result, the workload involved in this process must be estimated based on the experience of the project team. We assume that is **45** minutes are spent per report that is written.
- **Net Available Work Hours** – The average number of actual hours that a patrol officer is available to work after accounting for all hours of leave (including vacation, sick, long term disability, military leave, etc.) and time spent on administrative functions (e.g., briefing, lunch, vehicle refueling, etc.), as well as other factors such as court and training time occurring during a shift. Calculations are made using data obtained from the personnel management systems used by the department, covering calendar and including only patrol officers.

The next section converts these assumptions and methodologies into an analysis of Raleigh's patrol staffing needs.

## 2. CURRENT FIELD OPERATIONS DIVISION STAFFING AND AVAILABILITY

### (1) Actual and Authorized Patrol Officer Staffing Levels

The following table displays current and authorized staffing levels for patrol officers, as of January 2015:

Current Patrol Officer Staffing by District

District	Actual Patrol Officers	Auth. Patrol Officers
Downtown District	44	46
North District	64	66
Northeast District	48	48
Northwest District	41	43
Southeast District	62	72
Southwest District	56	59
Other/External	–	–
<b>Total</b>	<b>315</b>	<b>334</b>

For the most part, districts have similar staffing levels, with the exception of North District and Southeast District, which have up to many as 20 additional officers allocated in comparison with other beats.

## **(2) Net Availability of Patrol Officers**

In order to accurately represent staffing needs, it is critical to develop an accurate representation of the various factors impacting the availability of officers to respond to calls for service. Beginning with the total number of annual work hours for RPD officers under the current 12-hour shift schedule (2,184), we have used a combination of calculations made from department personnel data, as well as assumptions made based on the experience of the project team, to determine the average number of available hours per officer. The result is the net availability of patrol units – the average number of hours in which a patrol officer is available to respond to calls for service after all types of leave, on-duty court and training hours, as well as time spent on administrative tasks have been considered.

### **Summary of Availability Factors Used in Staffing Calculations**

<b>Category</b>	<b>Value</b>
Total Annual Hours	2,184
Average Leave Hours	309
Average On-Duty Training Hours	54
Average On-Duty Court Hours	20
Total Working Hours	1,800
Est. Administrative Hours	234
<b>Net Available Work Hours</b>	<b>1,566</b>
<b>As % of Total Work Hours</b>	<b>72%</b>

The key result of these calculations, the net availability of patrol officers, will be used in our analysis to estimate officer proactivity levels and patrol staffing needs. It is



assumed that patrol officers are deployed evenly across different hours of the day, given the 12-hour shift system currently used by the department.

### 3. SUMMARY OF WORKLOAD HANDLED BY PATROL UNITS

In order to conduct a complete analysis of the proactivity and staffing needs of the department, a detailed analysis must be completed of the current workload handled by patrol officers. The following sections provide a detailed breakdown of the frequency and time spent by officers in responding to community-generated incidents, examining the various factors involved for both primary and backup units. Because the previous channel has examined the data in great detail, as well as the calculation process used to obtain it, this section will provide a summary of the various workload factors used in our analysis.

The following table provides a breakdown of the average time used by RPD patrol units to handle community-generated calls for service in 2014:

**Summary of Patrol Workload Factors**

Category	Value
Total Calls for Service	165,484
Average Primary Unit Handling Time (minutes)	41.42
Total Primary Unit Handling Time (hours)	114,290
Backup Unit Rate Per CFS	0.65
Average Backup Unit Handling Time (minutes)	30.74
Total Backup Unit Handling Time (hours)	55,260
Report Writing Time Per Report (minutes)	45
Reports Written Per CFS	0.33
Report Writing Time Estimate (hours)	41,371
Total Hours of Committed Time	210,921
Total Work Hours	493,320
% Overall Proactive Time	57.24%

It should be noted that these figures represent overall averages for the entire year. Given that the time factors involved in handling a single call can be expected to vary depending on the time of day, day of week, and geographical area in which it occurs, its impact on the availability of patrol units varies as well. This is considered when conducting our analysis of proactivity levels and staffing needs.

#### **4. RESULTS OF THE PROACTIVITY ANALYSIS**

In order to accurately reflect how each workload factor varies over a period of time, the actual data regarding primary and backup unit handling time, as well as estimated report writing time, has been aggregated by hour and weekday. The data used in these tables have been presented in previous sections. After combining the total workload hours from the number of available officer hours – which has been obtained through the net availability calculations – we are left with the number of hours in which patrol hours are not handling community-generated workload. For each hour and day of the week, this number is then divided by the total number of staff hours at that particular time and weekday, resulting in the overall percentage of time available to patrol officers to conduct proactive policing activities. The percentage includes the time that is spent on officer-initiated activities, such as traffic stops, non-investigative field interviews, and preventative patrol.

The results of these calculations are displayed in the following tables, which show proactivity levels by hour and weekday:

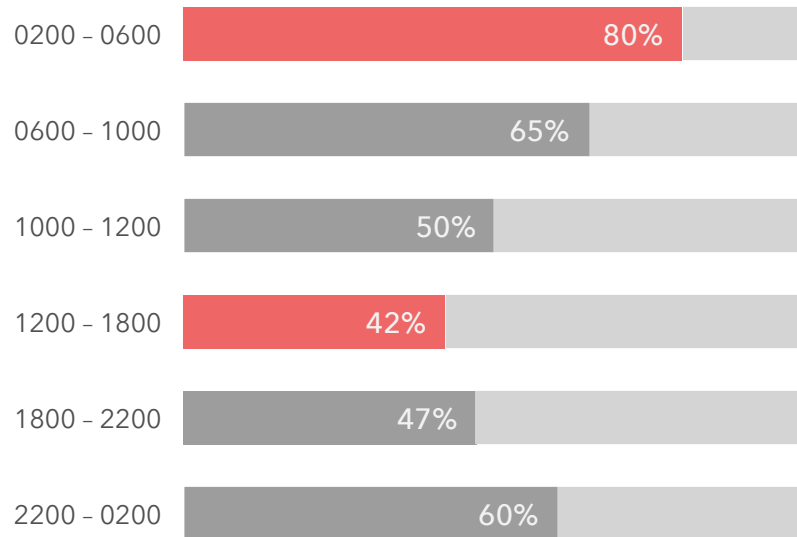
**Patrol Unit Proactive Time by Hour and Weekday**

Hour	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Overall
0200	51%	82%	82%	77%	73%	74%	55%	71%
0300	67%	83%	84%	81%	83%	80%	68%	78%
0400	78%	86%	89%	86%	86%	85%	78%	84%
0500	85%	86%	86%	86%	88%	86%	84%	86%
0600	87%	82%	82%	80%	83%	82%	81%	83%
0700	80%	64%	63%	64%	63%	64%	75%	67%
0800	73%	54%	55%	50%	50%	50%	58%	56%
0900	62%	58%	51%	53%	54%	53%	54%	55%
1000	59%	54%	48%	48%	55%	50%	45%	51%
1100	57%	53%	45%	52%	56%	47%	51%	52%
1200	55%	46%	45%	47%	52%	47%	44%	48%
1300	56%	52%	45%	41%	49%	43%	44%	47%
1400	55%	46%	42%	49%	44%	42%	43%	46%
1500	54%	44%	45%	41%	42%	39%	44%	44%
1600	51%	43%	36%	35%	46%	33%	39%	40%
1700	54%	37%	36%	35%	39%	30%	45%	39%
1800	52%	45%	43%	41%	46%	43%	47%	45%
1900	53%	47%	51%	49%	48%	38%	43%	47%
2000	52%	47%	51%	41%	53%	50%	43%	48%
2100	58%	49%	53%	44%	51%	42%	43%	49%
2200	59%	57%	54%	54%	56%	39%	43%	51%
2300	65%	65%	64%	57%	56%	45%	36%	55%
0000	43%	72%	68%	67%	69%	61%	49%	61%
0100	53%	78%	73%	72%	77%	69%	62%	69%
Total	61%	59%	58%	56%	59%	54%	53%	57%

This data has been also summarized into the table below, which groups the proactivity results into four-hour blocks of time:

**Patrol Unit Proactivity by Four-Hour Blocks**

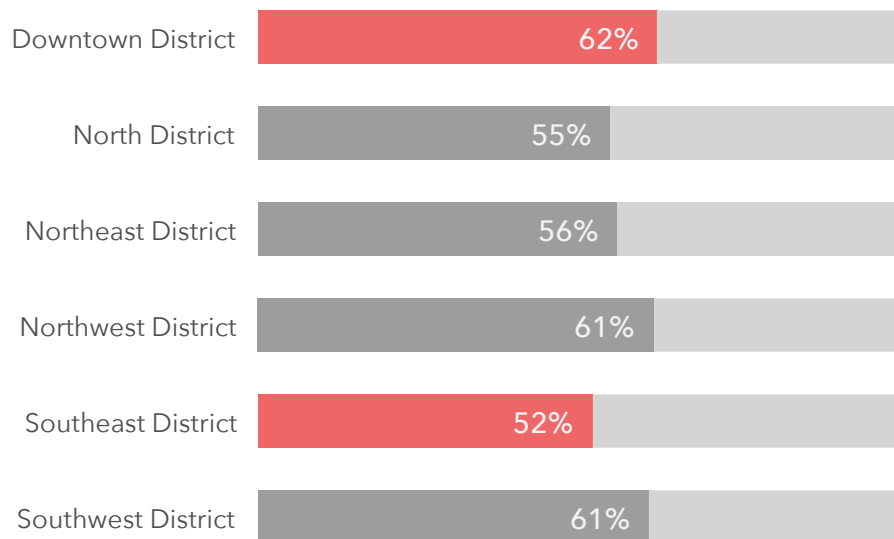
Time Range	Total Staff Hours	Total Workload Hours	% Proactivity
0200 – 0600	82,220	16,823	80%
0600 – 1000	82,220	28,677	65%
1000 – 1200	82,220	41,479	50%
1200 – 1800	82,220	47,341	42%
1800 – 2200	82,220	43,463	47%
2200 – 0200	82,220	33,136	60%
Total	493,320	210,921	57%



Proactivity levels also vary significantly by district. The table below provides these statistics, as well as a summary of the workload and staffing totals in each area:

**Patrol Unit Proactivity by District**

District	Net Available Staff Hours (Actual)	Total Workload Hours	% Proactive Time
Downtown District	68,908	26,174	62.0%
North District	100,230	45,447	54.7%
Northeast District	75,173	33,266	55.8%
Northwest District	64,210	24,808	61.4%
Southeast District	97,098	46,764	51.8%
Southwest District	87,701	34,463	60.7%
Other/External	—	—	—
<b>Total</b>	<b>493,320</b>	<b>210,921</b>	<b>57%</b>



Proactivity levels are high in all six districts, with three districts above 60% overall. While Southeast District has the lowest overall proactive time at 52%, it is still well above the threshold for an effective level of patrol proactivity. In effect, the proactivity analysis demonstrates that the Field Operations Division has enough patrol officers allocated to be able to operate in a highly effective proactive capacity.

The following staffing analysis will examine this in further detail, as it projects staffing needs with respect to the growth of the community.

## 5. ANALYSIS OF STAFFING NEEDS

While the previous sections have provided an analysis of proactivity levels under current staffing levels and workload, the same factors can be used to estimate staffing needs. In order to provide this analysis, our project team uses a combination of the workload statistics we have calculated from CAD data, as well as the net availability numbers obtained previously. The result of this process is the overall number of patrol staff the department required in order to meet the demands of the current community-generated workload, given existing levels of officer availability.

Factored into these assumptions is an estimate that the patrol workload will incrementally rise next year as the city's population continues to expand. While growth projections will be analyzed further in later sections, for the purposes of staffing estimates, we have assumed that the number of calls for service handled by the department will increase by 1.5%.

The table below details the process of our staffing calculations, including the recommended number of patrol officers in order to meet the division's proactivity target:

**Staffing Analysis Calculations and Results**

Category	Value
Total Workload Per Call (minutes)	76.5
Expected Growth in # of CFS	1.5%
# of Resulting Workload Hours	214,085
Net Available Hours Per Officer	1,566
Adjustment for Turnover	3.7%
Proactivity Target	55%
Patrol Officers Needed	315

In effect, the calculations show that the current *actual* number of patrol officers is appropriate for expected workload levels, given a proactivity target of 55% and a turnover rate of 3.7%. Given these findings, the department should leave the remaining 19 positions unfilled.

**Recommendations:**

- **Based on 2014 data, the number of Police Officers filled in Patrol at the time of the analysis is appropriate to handle calls for service and have very high proactive capabilities.**
- **While patrol proactive capabilities are high in Raleigh and that time is utilized by Officers to generate activities in the community, it needs to be better directed through analysis and by first line supervisors.**

- **Implement a more flexible approach to balancing filled and vacant positions against the workload demands and proactivity needs of the City overall.**

## **6. IMPACT OF POPULATION GROWTH ON SERVICE LEVEL EXPECTATIONS AND STAFFING NEEDS**

Given that Raleigh is currently one of fastest growing cities in the nation, it is essential for staffing needs to be projected further than the immediate needs of the department. In the previous section, we have adjusted for 2015 growth by increasing the total number of workload hours handled by patrol by 1.5, as the data used to produce that total covered 2014. In order to project staffing needs beyond that, however, a wider approach is required that takes into consideration the expected in changes in growth rate over the next few years.

According to the official estimates produced by the United States Census Bureau, the population of Raleigh stood at approximately 431,746 in 2013, having increased by about 2.0% in the previous year – demonstrating that considerable growth continues to take place in the area. In total, from the 2000, to 2010, the population of Raleigh has grown by about 48.8%, equating to about 141,562 additional residents. The tables below summarize these changes overall and by district from 2000 to 2010:

**Citywide Population Changes, 2000 – 2013**

<b>Category</b>	<b>2000</b>	<b>2010</b>	<b>2013 est.</b>
<b>Population</b>	290,184	406,324	431,746
<b>Avg. Change / Year</b>	–	11,614	8,474
<b>Avg. Annual Growth</b>	–	4.0%	2.1%

**Population Changes by District, 2000 – 2010**

District	Pop. Change ('10 - '00)	% of City Growth ('10 - '00)
Downtown	1,457	1.4%
North	5,705	5.3%
Northeast	47,312	44.2%
Northwest	25,760	24.1%
Southeast	19,836	18.5%
Southwest	6,907	6.5%

Although recent rate of growth is shown as being somewhat slower than it was in the previous decade, this may be attributed to the economic cycle, as evidenced even more recent patterns in building permits. Using numbers from the 2013 Raleigh Growth and Development Report, more building permits were issued to construct residential dwellings in 2012 than in the previous three years combined. The same report also estimates that overall, population will reach 510,175 by 2010.

Using these numbers, it is possible to project workload and staffing needs over the next six years. A number of assumptions must be made in these calculations, as summarized below:

- For every year in between 2013 and 2020, the year of the estimate, population is calculated as an annual percentage rate.
  - The difference between the estimated population in 2020 and 2013 is 78,429.
  - We are assuming that population grows at a consistent rate, rather than a specific increment.
  - In order for the 2010 estimate to be reached in seven years, a growth rate of 2.41% must be reached each year.
- Instead of the previously used 1.5% adjusted increase in the number of community-generated calls for service generated in a year, it is assumed that the current proportion of calls for service to population is maintained as the city grows. As a result, calls for service estimates scale directly with population increases, rather than increasing at an independently fixed rate.



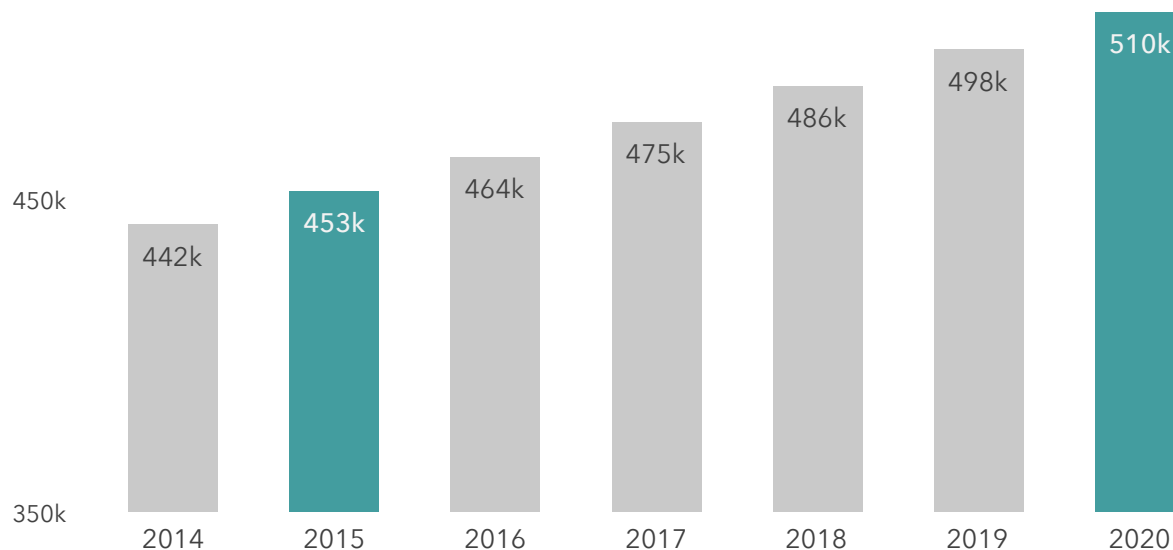
- It is assumed that the average net available hours actually worked by patrol officers continues to be approximately 1,566, and that proactivity level targets remain at 55%.
- Turnover is estimated to remain at 3.7% per year, and is built into staffing numbers.

The results of these calculations are displayed in the table below, displaying projected population, calls for service, workload hours, and patrol staff needed for every year up through 2020:

**Projected Population and Staffing Changes, 2014 – 2020**

Category	2014	2015	2016	2017	2018	2019	2020
<b>Est. Population</b>	442,167	452,837	463,765	474,957	486,418	498,157	510,175
<b>Calls for Service</b>	165,484	169,477	173,567	177,756	182,045	186,439	190,936
<b>Workload Hours</b>	210,921	216,011	221,224	226,562	232,030	237,629	243,362
<b>Patrol Officers Needed</b>	<b>310</b>	<b>318</b>	<b>326</b>	<b>333</b>	<b>341</b>	<b>350</b>	<b>358</b>

**Projected Population Growth, 2014 – 2020**



Overall, the model projects that patrol officer staffing needs will grow by approximately 15.5% over the next six years, within the parameters of the assumptions listed above. Given that the growth in workload will occur disproportionately in different

areas of the city, as demonstrated by the differences between the 2000 and 2010 censuses by district, it underscores the importance of regularly adjusting staffing levels by district in order to achieve balance balanced workloads for patrol officers. The need for such a process is examined further in a later chapter in this report.

## **4. BEAT STRUCTURE EVALUATION AND REDESIGN**

The following chapter provides an overview of the role of the patrol beat structure in facilitating community policing strategies, as well as a comprehensive analysis of the structure currently used by the Field Operations Division. In response to the findings of this analysis, the project team has completed a full redesign of the Raleigh Police Department's beat structure, additionally examining the implications of the recommendations on the allocation of staff within the Division.

### **1. VALUE OF THE BEAT SYSTEM**

As the community policing philosophy revolves around the interactions between patrol officers and the area they patrol, the design of a beat system is integral to the effectiveness of community-focused patrol initiatives. Given this, the design of a beat structure should facilitate community policing, as well as core components of the department's strategies for reducing crime and disorder. In essence, rather than simply serving to divide workload areas between beats, the beats themselves should be designed around areas of workload.

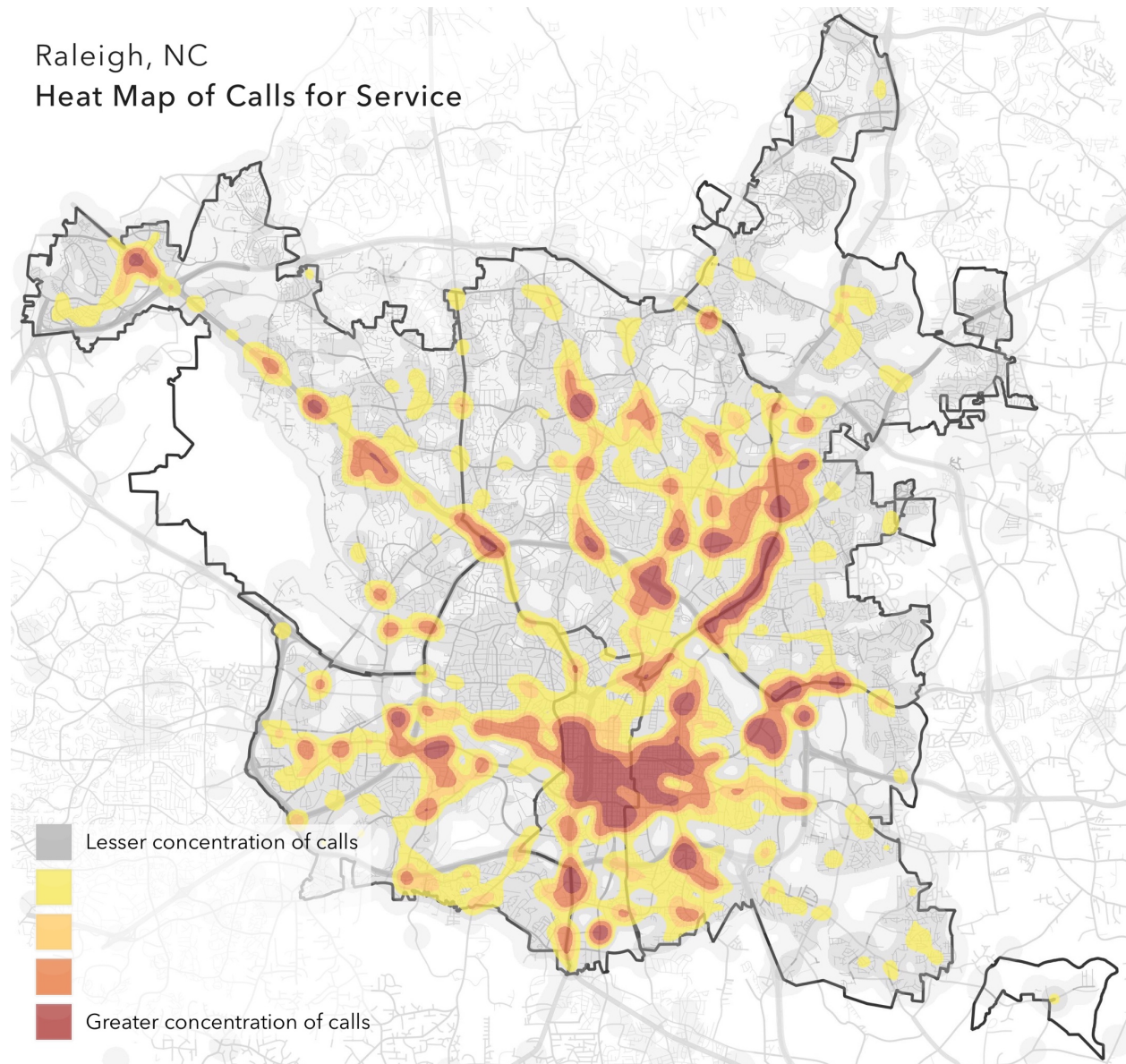
In the current beat structure, much of the workload handled by patrol units falls within specific, highly localized areas. To illustrate this, the following map highlights several streets that each represent a significant volume of calls for service. These streets include Capital, New Bern, Martin Luther King Jr, Hillsborough, Poole, Falls of Neuse, and Six Forks, as shown in the following map:



In 2014, a total of 39,534 calls for service occurred within the blue shaded areas alone. Despite comprising such a small area of the city, these streets alone represent one-quarter of the workload handled by patrol units. Many of these areas are individual streets that serve as the dividing lines between beats and districts.

The following heat map of calls for service identifies many of the same areas, as well as other key areas that constitute a large share of the department's workload:

Raleigh, NC  
Heat Map of Calls for Service



The map demonstrates that most hotspots falling outside of major roads – excluding in the downtown region – tend to be small and localized. Many of these hotspots center around specific themes, such as mental commitment calls. These findings are important to the structure of the beat system, which should be designed to focus staffing resources around areas of significant workloads in order to facilitate improved community policing strategies.

## **2. MAJOR FACTORS IN BEAT STRUCTURE DESIGN**

The following sections outline the key factors involved in designing an effective beat system, including an evaluation of how the current beat structure performs in each of these categories.

### **(1) Equalization of Workload**

Above all other factors, the equalization of workload by beat is the single most important consideration in developing an effective structure for geographic deployment. There are a number of reasons why it is critical to focus on this aspect of beat design in particular. If every beat officer is handling the same amount of workload, the overall service level provided by patrol units is uniform distributed across the city.

Moreover, the proactive capabilities of each officer would also be evenly distributed. Because proactive time enables patrol units to engage in community and problem oriented policing activities – strategies that are proven to reduce crime and disorder – the greatest benefit is gained in areas featuring the highest levels of crime and calls for service volume. Often times, however, beats in areas such as these have the least amount of proactive time. As a result, equalization of workload between beats is essential not only to the designing a beat structure, but to the ability of the department overall in lowering crime and disorder throughout the city.

The following tables provide a detailed comparison of the inequality in workload for each beat and district, including the number of calls for service originating in that area, as well as the primary and backup unit handling time averages and totals.

It should be noted that the most critical element of the tables in relation to the issue of geographic workload imbalance, is the percentage by which the calls for



service total of each beat differs from the overall average. It is also worth noting that the overall average refers to the average total of all Raleigh Police Department beats, as opposed to only the other beats in a particular district. Calls assigned to the “Unknown/External” category do not contribute to the average. Furthermore, beats with greater or less than 25% of the average calls for service total for a beat (about 2,626) have been highlighted with in gray.

**Downtown District (Current)**

Beat	Calls for Service		Primary Unit HT		Backup Unit HT	
	# CFS	% from Avg.	Avg. HT	Total Hours	Avg. HT	Total Hours
511	923	-65%	38.7	595	28.9	563
512	1,484	-43%	42.2	1,043	30.5	962
513	1,078	-59%	41.9	753	29.2	601
514	2,809	7%	40.3	1,886	31.7	2,016
515	867	-67%	41.9	605	31.8	967
516	2,618	0%	43.3	1,891	29.1	2,414
521	1,669	-36%	42.1	1,171	27.4	1,903
522	2,022	-23%	42.2	1,423	31.5	1,429
523	1,363	-48%	38.7	879	30.8	1,050
524	1,691	-36%	40.5	1,141	30.3	1,324
525	3,056	16%	40.3	2,051	30.5	2,080
Unkn.	1	—	44.1	1	22.8	73
Subtotal	19,581	—	41.3	13,440	30.1	15,382

- Overall, workload is significantly imbalanced, with 8 out of 11 beats having less than 35% of the average number of calls for service.
- In particular, beats 511, 513, and 515 handle the least amount of calls for service out of any beat in the city.

**North District (Current)**

Beat	Calls for Service		Primary Unit HT		Backup Unit HT	
	# of CFS	% from Avg.	Avg. HT	Total Hours	Avg. HT	Total Hours
211	2,865	9%	42.9	2,049	33.1	2,255
212	2,239	-15%	41.4	1,546	32.4	1,372
213	1,462	<b>-44%</b>	43.1	1,049	30.3	848
214	2,455	-6%	41.1	1,681	31.8	1,609
215	2,346	-11%	41.2	1,612	29.8	1,430
216	3,126	19%	43.4	2,259	31.2	1,945
217	4,849	<b>85%</b>	40.6	3,282	31.5	2,932
221	3,330	<b>27%</b>	40.4	2,244	29.8	2,389
222	1,592	<b>-39%</b>	41.4	1,098	27.7	1,010
223	2,488	-5%	41.1	1,703	33.0	1,317
224	2,296	-13%	40.6	1,555	31.7	1,502
225	3,467	<b>32%</b>	41.5	2,396	31.9	2,511
226	3,165	21%	38.9	2,051	28.4	1,543
Unkn.	1	—	43.4	1	33.3	171
Subtotal	35,681	—	41.3	24,526	31.2	22,834

- The North District has largely balanced workloads among its thirteen beats, with the exception of five beats which feature calls for service totals over or less than 25% of the average.
- The beat with the highest workload (217) handles over 3.3 times the number of calls as the beat with the least amount in the district (213).
- As in other districts, the average handling time for primary units in each beat is virtually identical.

**Northeast District (Current)**

Beat	Calls for Service		Primary Unit HT		Backup Unit HT	
	# of CFS	% from Avg.	Avg. HT	Total Hours	Avg. HT	Total Hours
311	6,027	<b>130%</b>	41.7	4,187	30.8	3,489
312	2,953	12%	41.9	2,063	31.3	1,407
313	2,759	5%	40.4	1,857	29.2	1,519
314	5,786	<b>120%</b>	40.4	3,899	30.3	3,213
315	1,787	<b>-32%</b>	41.0	1,220	30.2	823
321	2,750	5%	40.9	1,873	30.8	1,564
322	1,351	<b>-49%</b>	41.0	924	28.3	746
323	1,816	<b>-31%</b>	41.2	1,247	30.8	986
324	2,025	-23%	43.1	1,454	31.9	1,153
Unkn.	3	—	42.0	2	32.5	127
Subtotal	27,257	—	41.2	18,727	30.5	15,027



- Five out of nine beats have greater or less than 25% of the average number of calls for service.
- The also contains two of the most active beats, 311 and 314, which together account for over 43% of the districts calls for service.
- It is interesting, however, that the average and total backup unit times for beats 311 and 314 is higher than the norm.

**Northwest District (Current)**

Beat	Calls for Service		Primary Unit HT		Backup Unit HT	
	# of CFS	% from Avg.	Avg. HT	Total Hours	Avg. HT	Total Hours
111	2,627	0%	44.1	1,929	30.2	1,367
112	2,239	-15%	40.1	1,498	31.9	1,664
113	3,622	<b>38%</b>	41.8	2,526	31.1	2,384
114	1,756	<b>-33%</b>	41.2	1,205	31.3	967
121	3,469	<b>32%</b>	41.3	2,390	30.7	2,781
122	2,313	-12%	42.9	1,655	29.6	1,474
123	3,234	23%	40.3	2,171	29.2	2,061
Unkn.	–	–	44.3	–	33.2	165
Subtotal	19,260	–	41.6	13,373	30.6	12,863

- Three out of six beats have greater or less than 25% of the average number of calls for service.
- The Northwest District is the least active district of the six in terms of both calls for service volume and total hours of handling time.

**Southeast District (Current)**

Beat	Calls for Service		Primary Unit HT		Backup Unit HT	
	# of CFS	% from Avg.	Avg. HT	Total Hours	Avg. HT	Total Hours
411	3,219	23%	40.9	2,194	31.5	2,212
412	2,060	-22%	42.0	1,441	31.8	1,507
413	1,869	<b>-29%</b>	40.3	1,256	30.9	1,386
414	5,948	<b>127%</b>	42.0	4,165	30.4	2,673
421	2,179	-17%	40.5	1,470	32.8	1,377
422	1,084	<b>-59%</b>	42.3	765	30.8	990
423	2,046	-22%	41.3	1,410	30.5	1,568
424	3,766	<b>43%</b>	42.4	2,660	30.7	2,822
431	5,061	<b>93%</b>	42.5	3,588	31.6	3,637
432	1,863	<b>-29%</b>	42.4	1,316	33.2	951
433	3,892	<b>48%</b>	40.8	2,647	30.6	2,103
434	3,313	<b>26%</b>	43.6	2,409	30	2,326
Unkn.	1	—	44.2	1	25.7	140
<b>Subtotal</b>	<b>36,301</b>	<b>—</b>	<b>41.9</b>	<b>25,321</b>	<b>31.0</b>	<b>23,692</b>

- 8 of 12 beats have greater or less than 25% of the average number of calls for service.
- The district also features several beats with significantly greater workloads than most beats, such as 414, 424, 431, and 433.
- To that point, 414 has the highest activity among all RPD beats, with approximately 4,165 hours of community-generated workload in 2014.

**Southwest District (Current)**

Beat	Calls for Service		Primary Unit HT		Backup Unit HT	
	# of CFS	% from Avg.	Avg. HT	Total Hours	Avg. HT	Total Hours
611	3,009	15%	39.3	1,972	32	1,639
612	2,203	-16%	41.2	1,514	31.6	1,184
613	2,667	2%	41.9	1,862	30.5	1,694
614	1,423	<b>-46%</b>	40.8	968	30	1,002
615	2,704	3%	41.4	1,867	29.9	1,794
616	3,377	<b>29%</b>	40.8	2,294	29.7	2,115
621	3,181	21%	42.0	2,228	30.8	1,977
622	2,900	10%	40.9	1,975	29.7	1,601
623	2,040	-22%	41.3	1,403	34	1,279
624	2,013	-23%	41.1	1,380	30.1	1,694
625	1,826	<b>-30%</b>	42.2	1,285	30.7	1,035
Unkn.	3	—	41.3	2	30.6	141
<b>Subtotal</b>	<b>27,346</b>	<b>—</b>	<b>41.2</b>	<b>18,749</b>	<b>30.7</b>	<b>17,155</b>

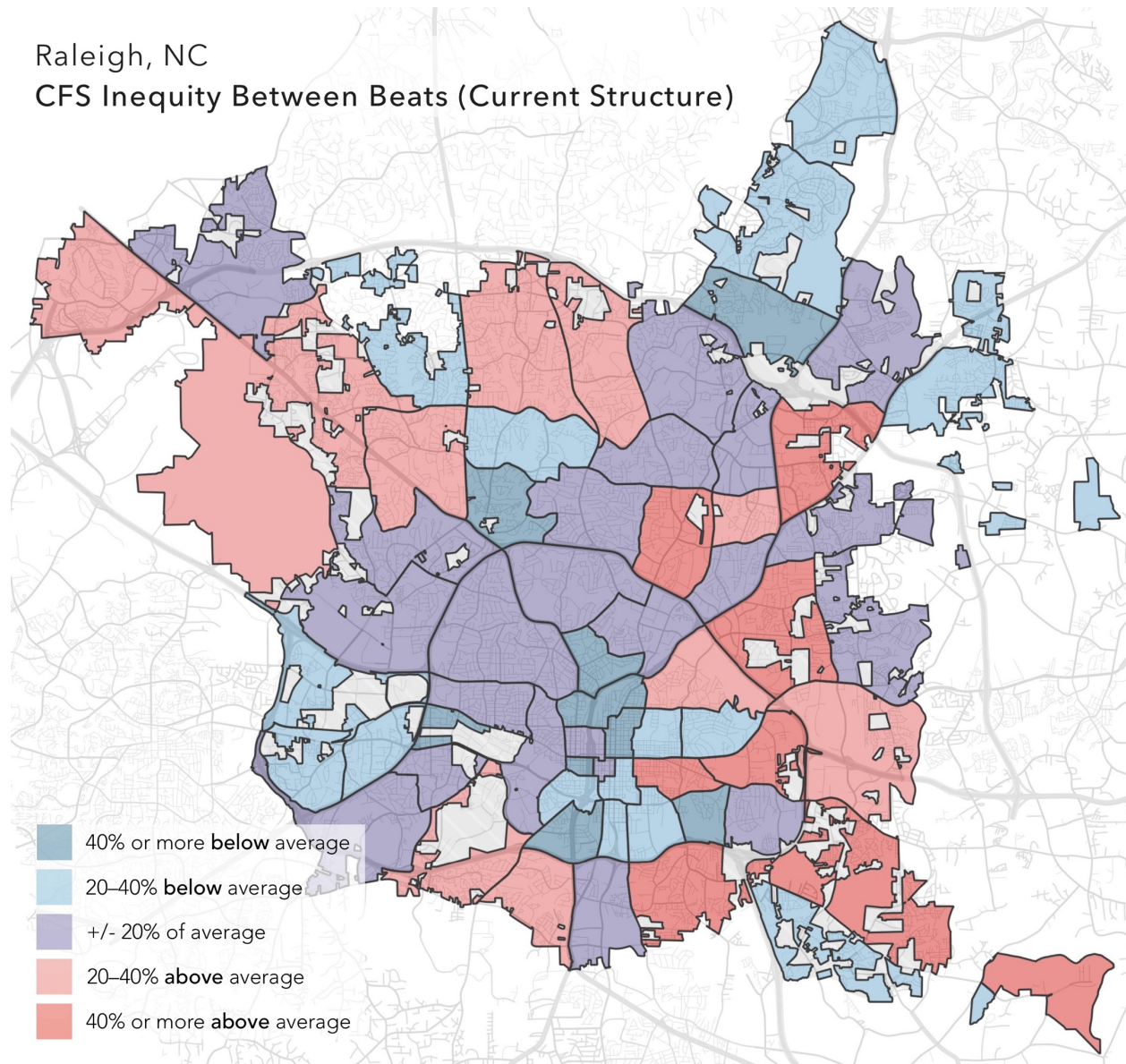
- Three of the district's eleven beats have greater or less than 25% of the average number of calls for service, with another three almost meeting the threshold.
- Overall, the workload in Southwest District beats is more evenly balanced than in most of the other districts.

In total, about half of the beats patrolled by the Field Operations Division have greater or less than 25% of the average number of calls for service for a single beat. Many of these beats are significantly outside of that range – several beats have over three times the workload as their neighbors. The issue adversely affects the level of service provided by patrol units, as the deployment of staff is severely mismatched against the workload. As a result, patrol units in areas with the most significant levels of workload are unable to be proactive in the same way that units in other beats are able to. In many cases, these areas also feature the highest densities of crime and other community-generated call activity, suggesting that proactive policing efforts would have the greatest impact.

Inequality between beats also affects officers morale, as reflected by the comments of many officers on the employee survey conducted for the study. The disparity in call volume results in beats becoming more or less desirable to work than others, and sometimes by a large margin.

The map below summarizes the issue of geographic workload inequality, displaying the percentage by which calls for service totals in each beat differs from the citywide average:

Raleigh, NC  
CFS Inequity Between Beats (Current Structure)



It is important to stress the point that although the map only shows inequality to the extent of 40% above or below the average number of calls for service, many of these beats have totals significant outside of these boundaries. To this point, several beats have workloads of around 130% above average – a significant contrast to some of the beats with comparatively minor workload levels.

## **(2) Neighborhood Integrity**

Another critical factor in the designing of a beat structure is how neighborhoods, commercial districts, and other areas are kept within individual beats. It is ideal to preserve the geographic integrity of these sub-regions for several reasons, particularly for the effect on community policing. Given that community policing centers around the interaction of patrol officers with the community, one of the greatest strengths provided by the practice is the knowledge of the problems present in an area, with added expertise to solve or improve those issues. Officers working in a specific area develop a detailed familiarity with trends and individuals relating to repeat calls for service, as well as a network of past interactions with place managers that may help in resolving situations or prevent them from occurring in the future. To this point, the first day that an officer is assigned to an area, they would not have the same level of expertise within the community that someone working the beat for several months would have.

While this is true for the value of the beat system overall, it also underlines the importance of containing neighborhoods and commercial districts within beats as much as possible. For instance, in any other manner of thinking other than the boundaries of RPD patrol districts, the two sides of the street of Capital Boulevard is considered one area. This is true in many of the RPD beat boundaries. Regardless of the side of the street that a business is on, it can be expected that similar issues will be encountered by responding patrol officers, and many times, the call will involve some of the same individuals as with a previous call on the opposite side of the street. However, because responsibilities for covering the area are split between two beats, the familiarity and expertise at the community level is halved. Furthermore, by using the street as a

boundary not only for beats, but also districts, the ability for officers within a district to collaborate on a community problem oriented policing project is diminished.

As a result, it is important for beat structure to facilitate community policing. While equalization of workload between beats may give officers the opportunity to conduct proactive policing, beats should also be designed with the goal of enhancing ability of the officers to be presences within an individual community – to be able to better identify issues and develop targeted strategies to address them.

### **(3) Transportation Routes**

It is essential for beat areas to also facilitate officer transportation. If we assume that the majority of an officer's time is spent within their own beat, the transportation network within that area should allow to move from one side to another quickly in order to be able to respond to a high-priority call. This issue is not as important as it once was, however, given the impact that AVL systems have had in this regard. In an emergency or otherwise severe call for service, the closest officer will be automatically dispatched to the call. Nonetheless, it is very preferable for each beat to have a minor or major arterial road within its boundaries to allow for rapid transit to connecting collector or local roads.

The current beat boundaries do this fairly effectively, as the results of the employee survey strongly indicated. It should be noted again, though, that major arterial roads often serve as the dividers between beats, meaning that if a beat has one effective transportation route, it is likely at its far edges. This makes transportation into the interior of that beat more difficult. If more time is spent on the major roads – an effective practice, considering the high concentration of calls in many of these areas –

the time it will take to use collector and local roads to reach the interior of their area will be increased. By contrast, if a major arterial road is at the center of a beat, the officer is able to fan out to calls in both directions, improving response times as a result.

#### **(4) Logical Barriers**

Freeways, bodies of water, and other manmade or logical barriers impeding travel across an area also play a significant role in beat design. It should be noted that this is not referring to major streets, such as Capital Boulevard or Glenwood Avenue, which have been covered under the Transportation Routes section. While not the sole factor in determining the boundaries of a beat, it is preferable to organize beats around significant barriers. Freeways, for example, often separate different communities, commercial districts, and other areas. Response time is also greatly impacted by having to travel across these barriers. The current beat structure does an effective job of doing this, using freeways as a common divider between beats and districts.

#### **(5) Other Factors**

There are a number of other additional factors that may come into consideration when evaluating and designing a beat structure that act in support of the process. Beat structure design is not as simple as drawing lines around workload and streets on a map – the service needs and characteristics of each community is unique for a number of reasons, and the beat structure used by patrol officers should be aware of those factors. For instance, one area may have a long-time issue with a specific problem.


Given the issues associated with dividing a neighborhood between multiple beats raised previously in the Neighborhood Integrity section, it would follow that a hotspot of a specific crime pattern should not be divided among several beats, as well. The same

benefits of keeping neighborhoods and commercial areas together apply to crime patterns as well, given the utility of officers that possess additional familiarity and expertise in dealing with the crime pattern in that specific area.

One limitation in this strategy, however, is that crime patterns are constantly changing and evolving. If crime is being diffused and dispersed around a wider area, which would be considered a key result of an effective problem oriented policing program, the shifting crime hotspots would not following the boundaries of existing beats. As a result, it is somewhat more difficult to draw beats around themed issues.

## **(6) Conclusions**

The beat system used by patrol can represent an integral part of the department's community policing efforts, playing a role in the suppression of crime and disorder. For a beat system to achieve this, however, key considerations must be made in its design. While there is no single strategy to align beat boundaries, it is important for there to be a regular process by which the structure is reevaluated and revised, as any community – and in particular, the Raleigh area – is constantly changing.



**Recommendation: Conduct a reevaluation and redesign of the patrol beat structure every five years in order to maximize the impact of staffing resources and better adapt to current trends of crime and disorder in the community.**



### **3. RESULTS OF THE BEAT STRUCTURE REDESIGN**

#### **(1) Overview of Methodology and Process**

The beat structure redesign process began by conducting extensive geography on the workload, staffing, and geography of the Raleigh's geography. This included the following:

- Conducted multiple patrol ride-alongs in each district with officers and sergeants
- Interviews with command staff in each district
- Comprehensive data collection, including CAD data listing the location of each call for service
- Gathering of all necessary background data to be used in GIS software, including census data, road shapefiles, building footprints, and all relevant boundary line information
- Conducted an employee survey within the Field Operations Division, gathering input on a number of issues and topics relating to beat design

Following this process, and after completing analysis of the CAD data to identify unique community-generated calls for service, a map of the RPD's jurisdiction was prepared using GIS software. In order to redesign the beat structure around a community policing philosophy, the entire city was manually divided up into over 300 clusters. Factors in selecting these clusters were developed through a combination of the following priorities:

- Identifying and maintaining entire neighborhoods and commercial districts within a single zone
- Splitting clusters by certain levels of call activity in order to facilitate workload equalization when eventually merging the zones into beat boundaries
- Natural and logical barriers, such as freeways and lakes

- Transportation routes
- Various other factors, such as crime patterns, where applicable

Under these guidelines, new beat boundaries were developed around the previously identified clusters.

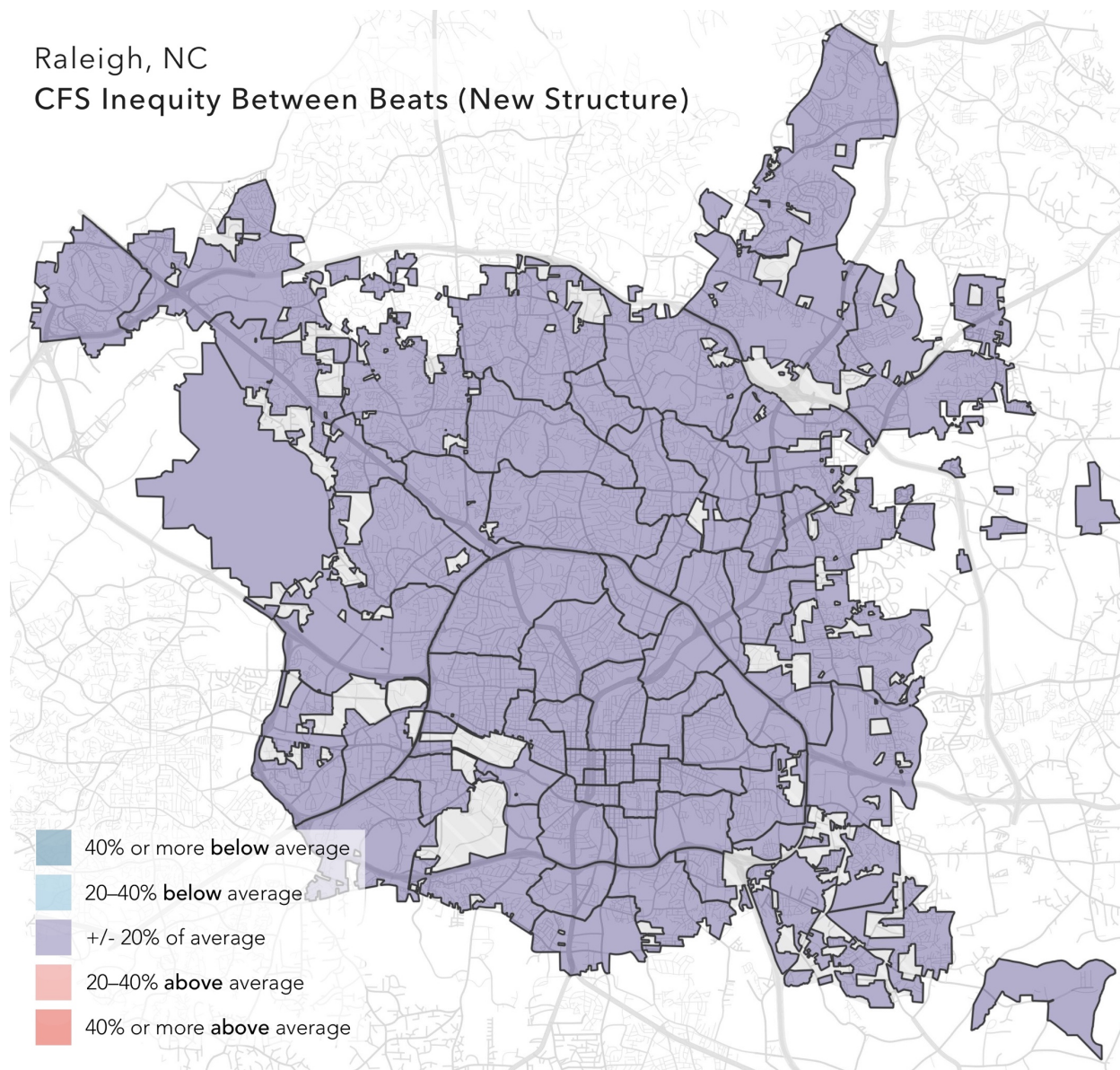
## **(2) Notes Regarding Technical Considerations**

All boundary shapefiles will be provided electronically, mitigating the amount of work that would need to be done to adapt these changes by CAD administrator staff. We recommend that in order to improve the beat system and correct any errors that have been made, that a feedback system be set up to gather input from patrol officers, particularly regarding the setting up of exact boundaries. Before that is done, however, it should be noted that the new beat boundaries are currently set up as geofences – lines that do not necessary follow street centerlines exactly, but nonetheless provide the necessary geospatial information to determine whether a point (i.e., an emergency call) is within one zone or another. If the CAD system used by the department is not capable of using geofences for technical reasons, the new boundaries can be snapped to fit onto road centerlines.

**Recommendation: Establish a process for feedback and input to be generated from all levels of the Field Operations Division on the boundaries of the new beat system.**

### (3) Overall Results

In total, the proposed new structure contains 63 beats – the same number of beats that are currently in existence. Equalization of workload has been achieved substantially, as reflected in the map below, which shows the percent by which the calls for service total of each new beat differs from the overall average:



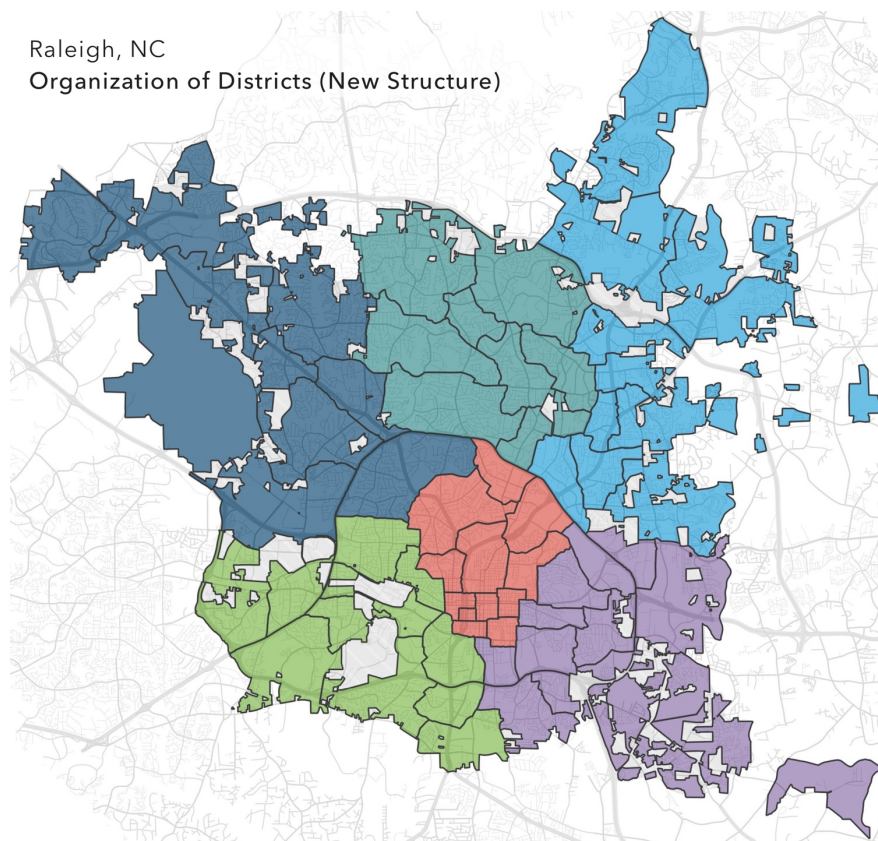
Although a few areas continue to have less than or over 10% of the average calls for service workload, none of the beats exceed the 20% threshold. The following

sections display calls for service totals under the proposed new beat structure, as well as a brief summary of the major areas covered within each district.

#### (4) Realignment of District Boundaries

The new beats have been aggregated into six districts, which for the most part resemble the districts currently in existence. The assignments are fluid, and there would be no significant impact in transferring beats between these districts. While beats should have equal workload, it is not necessary for districts to be equalized, given that staffing levels differ by district.

The map below displays the preliminary assignment of the new beats to district areas, with each represented by a unique color:

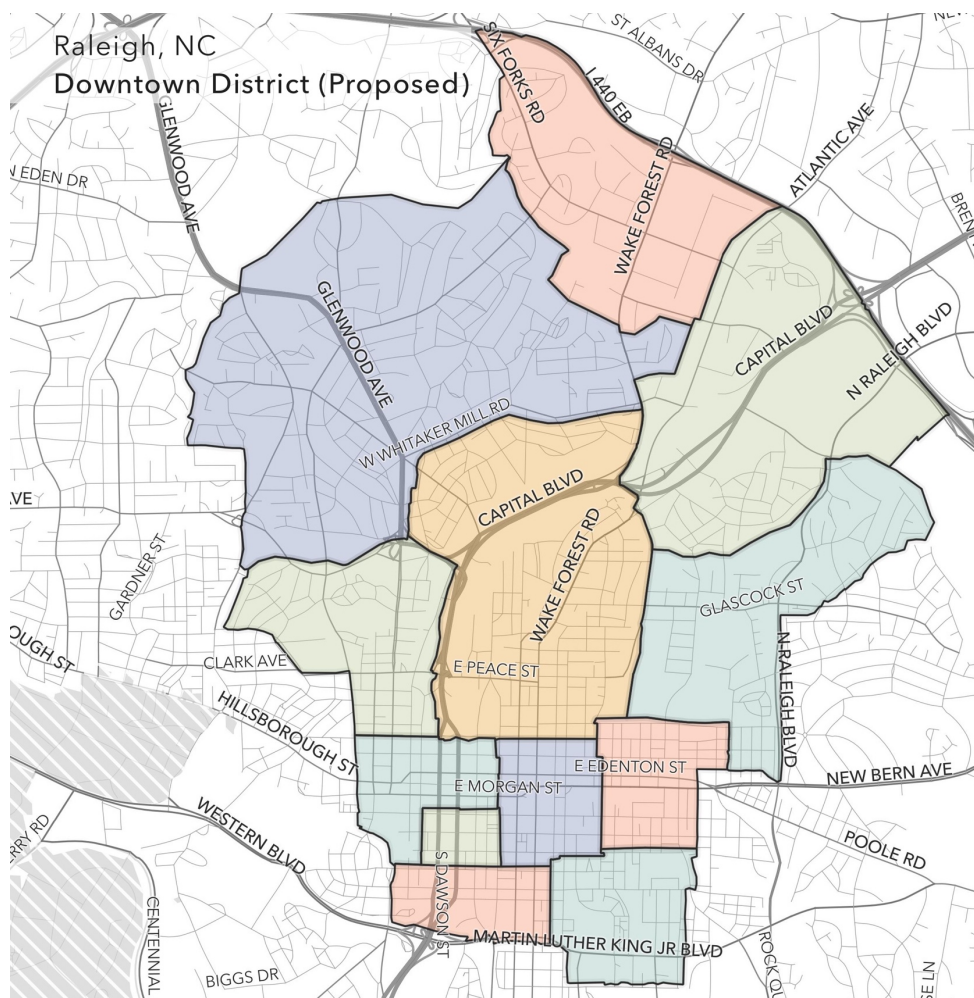


The following sections present additional detail on the beats corresponding to each new district in the proposed beat system.



## (5) Downtown District

Includes 12 beats, containing the downtown area, portion of Glenwood and Capital, as well as the area in between the two streets as they move closer to the city center.



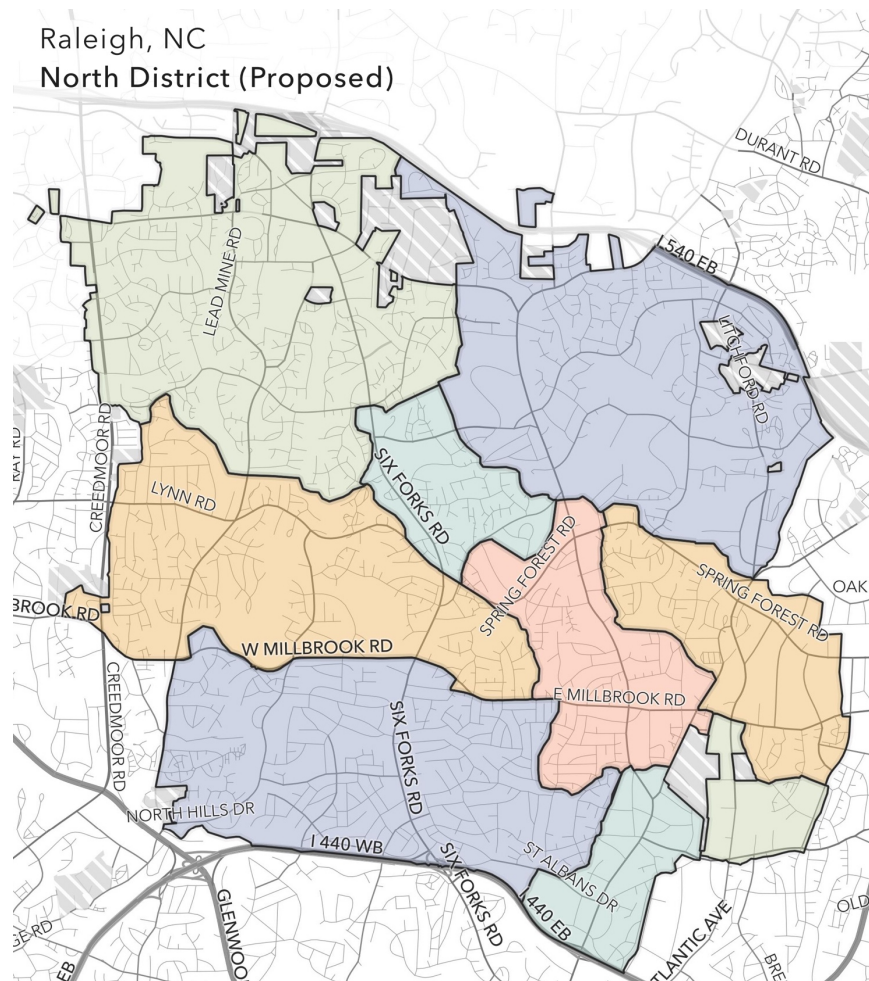
**Downtown District (New)**

#	Total CFS	% from Avg.
1	2,310	-10%
2	2,315	-10%
3	2,344	-8%
4	2,346	-8%
5	2,401	-6%
6	2,415	-6%
7	2,548	0%

#	Total CFS	% from Avg.
8	2,591	1%
9	2,626	3%
10	2,648	3%
11	2,672	4%
12	2,961	16%

## (6) North District

Contains 9 beats, including the key streets Six Forks and Falls of Neuse.



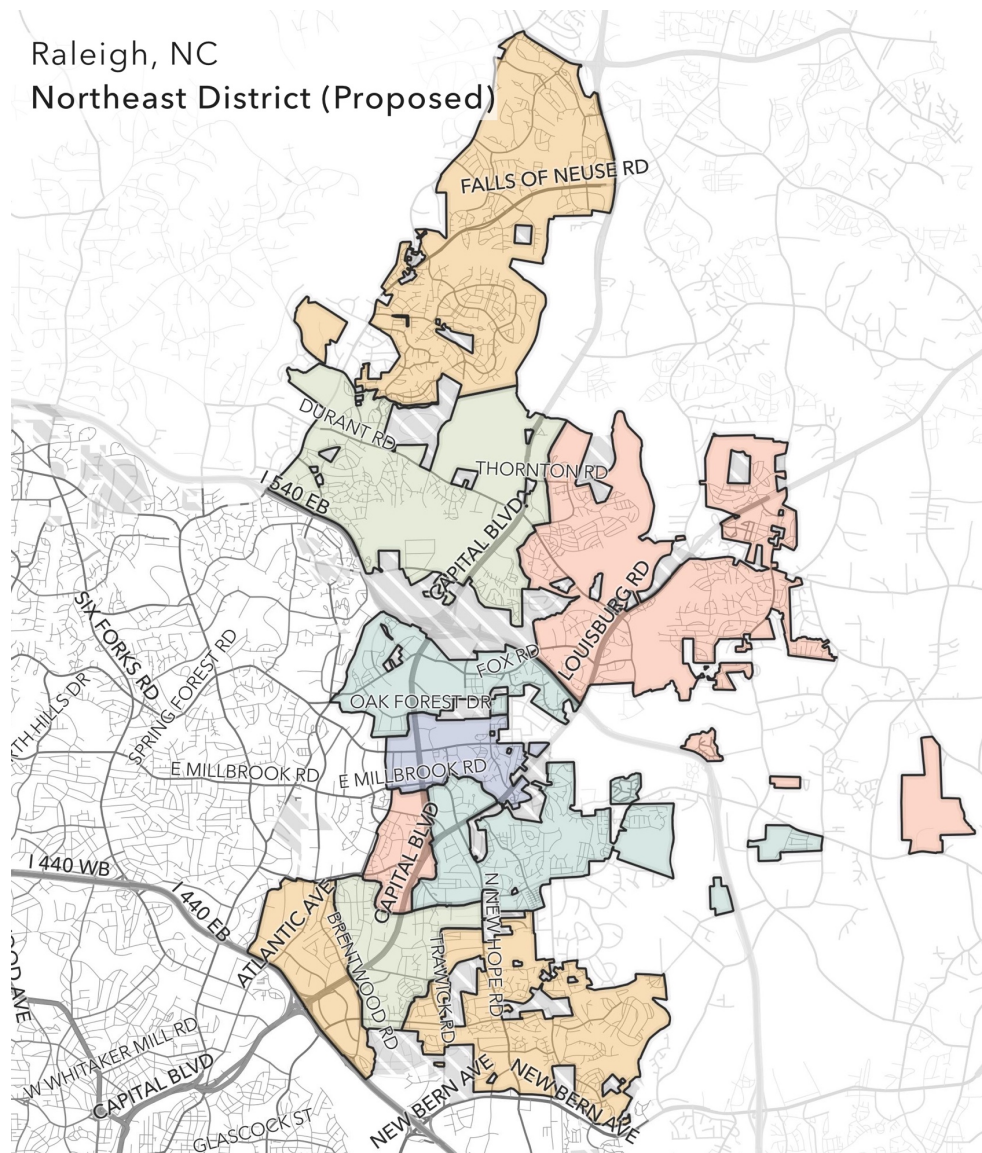
## North District (New)

#	Total CFS	% from Avg.
1	2,411	-6%
2	2,431	-5%
3	2,511	-2%
4	2,547	-1%
5	2,621	2%

#	Total CFS	% from Avg.
6	2,700	5%
7	2,703	6%
8	2,785	9%
9	2,891	13%

## (7) Northeast District

Contains 10 beats, most of which are organized around Capital and its surrounding area.



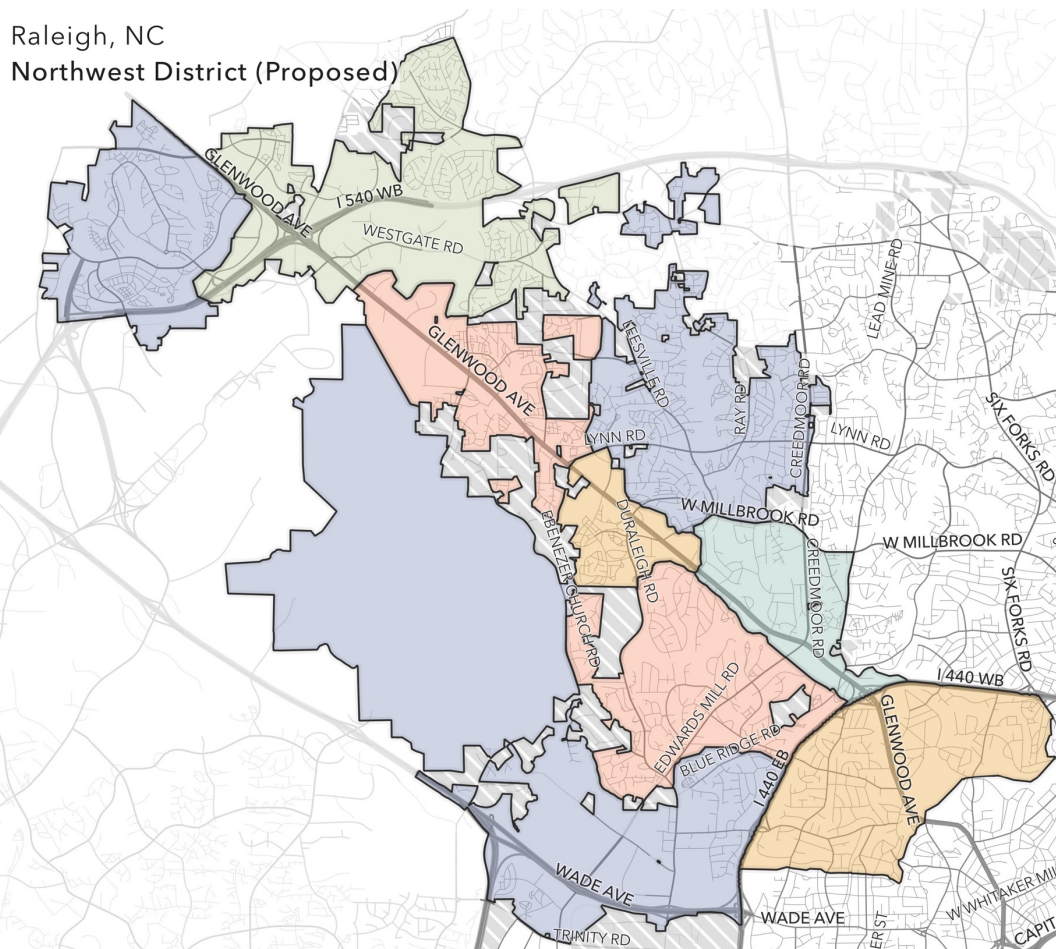


**North District (New)**

#	Total CFS	% from Avg.
1	2,291	-11%
2	2,294	-10%
3	2,450	-4%
4	2,450	-4%
5	2,543	-1%
6	2,687	5%
7	2,734	7%
8	2,740	7%
9	2,769	8%
10	2,787	9%

**8) Northwest District**

Includes 9 beats, with the vast majority of Glenwood and its surrounding area falling within its beats. Also contains the Briar Creek area.



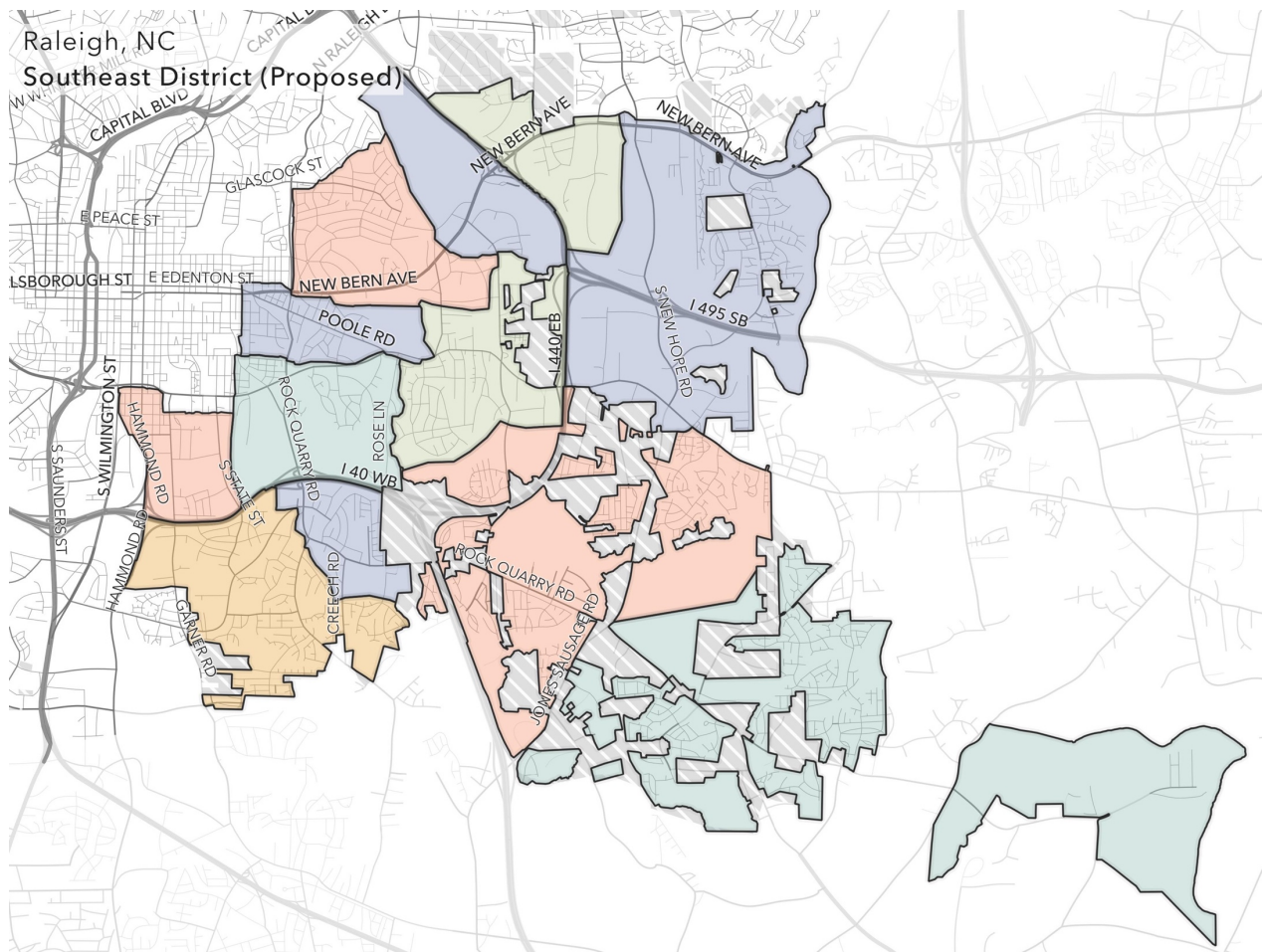


**Northwest District (New)**

#	Total CFS	% from Avg.
1	2,155	-16%
2	2,313	-10%
3	2,397	-6%
4	2,472	-3%
5	2,586	1%
6	2,628	3%
7	2,654	4%
8	2,816	10%
9	2,952	15%

**(9) Southeast District**

Contains 12 beats, including the key streets New Bern, Poole, and Martin Luther King Jr.



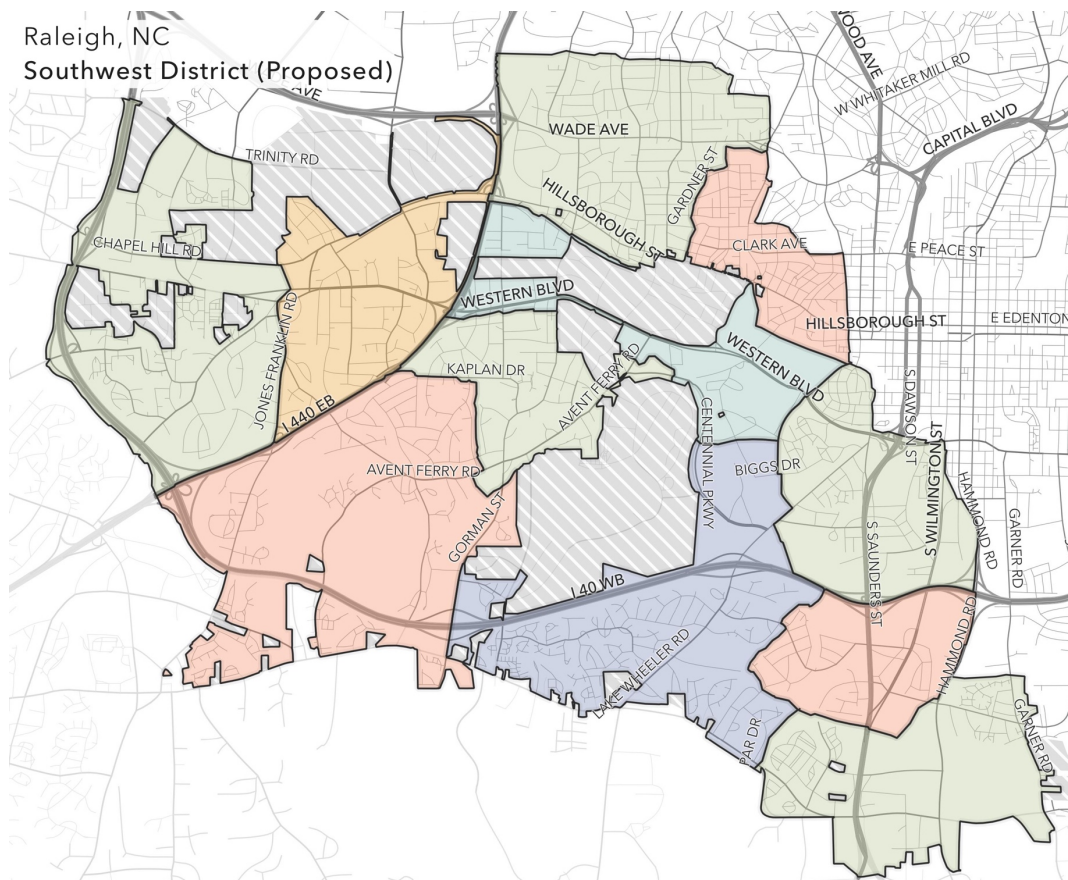
### Southeast District (New)

#	Total CFS	% from Avg.
1	2,127	-17%
2	2,354	-8%
3	2,402	-6%
4	2,405	-6%
5	2,503	-2%
6	2,568	0%
7	2,576	1%
8	2,598	1%
9	2,703	6%
10	2,763	8%
11	2,790	9%
12	2,811	10%

### (10) Southwest District

Includes 11 beats, mostly within the boundaries of the current southwest district.

Key streets include Hillsborough, S Wilmington, and Western.



**Southwest District (New)**

#	Total CFS	% from Avg.
1	2,244	-12%
2	2,296	-10%
3	2,426	-5%
4	2,477	-3%
5	2,567	0%
6	2,626	3%
7	2,657	4%
8	2,678	5%
9	2,692	5%
10	2,721	6%
11	2,802	9%

**Recommendation:** After an open process of feedback, review, and revisions, adopt the proposed new beat system.

**(11) Staffing Levels for the Proposed Beat Structure**

Under the proposed new beat structure, given that the number of beats within each district differs from the current structure, we recommend that a number of officers be transferred to compensate for these changes. Because community-generated workload has been largely equalized between beats, the number of officers assigned to a district should directly reflect the number of beats it has. By doing so, workload is not only equalized between each beat, but also among staff – officers assigned to a district can expect to have the same workload as an officer in another district.

Using the assumption that there is no change to the existing number of filled patrol officers positions (315), it is divided by the number of beats (63) to produce the ratio of officers per beat, which is exactly 5:1. This number is then multiplied by the number of beats within each district, producing the optimal allocation of patrol officer positions under the proposed new beat structure.

The table below contains the current figures, as well as the results and net effect of the position transfers:

**Current and Proposed Allocation of Filled Patrol Officer Positions**

District	# of Beats (Current)	Patrol Officers (Actual)	# of Beats (Proposed)	# of Officers (Proposed)	Net Change
Downtown District	11	44	12	60	16
North District	13	64	9	45	-19
Northeast District	9	48	10	50	2
Northwest District	7	41	9	45	4
Southeast District	12	62	12	60	-2
Southwest District	11	56	11	55	-1
Total	63	315	63	315	0

In most districts, the changes to staffing levels under the proposed new beat structure are relatively minor despite any changes that have been made to the number of beats in each district. For example, while the Northwest District gains two beats, the number of patrol officers increases by only four. This reflects a lower average number of workload hours per officers compared with most of the other districts, which will be examined further in the deployment alternatives section of this report.

Two districts do, however, experience significant changes to their staffing levels – Downtown and North. The 16 additional officers in the Downtown District account not only for the two additional beats under the proposed new structure, but also the currently lower ratio of workload hours per patrol officer position.

**Recommendation:** Upon adoption of the proposed new beat structure, make the following changes to the number of patrol officers assigned to each district, amounting to a net change of zero (0) positions overall:

- **Downtown District:** Increase the patrol officer assignments by 16.
- **North District:** Decrease patrol officer assignments by 19.
- **Northeast District:** Increase patrol officer assignments by 2.
- **Northwest District:** Increase patrol officer assignments by 4.

- **Southeast District: Decrease patrol officer assignments by 2.**
- **Southwest District: Decrease patrol officer assignments by 1.**

## **(12) Alternative District Alignment Configurations**

As discussed earlier in the chapter, while it is paramount for workload to be equalized among different beats to some degree, it not essential for the total workload handled by each district to be evenly distributed, as long as staff are assigned proportionally. Each district should feature the same ratio of patrol officers to beats, as doing so ensures that officers are handling roughly the same amount of workload regardless of their assignment.

In the current era of AVL (automatic vehicle location) based dispatch, district design does not for the most part factor into response time management. Even if a patrol car is in another district, it will still be automatically dispatched to a nearby high priority call if it is the nearest vehicle. As a result, the chief focus involved in aligning beats to districts is the formation of 'regions' that tend to group together similar themes and areas.

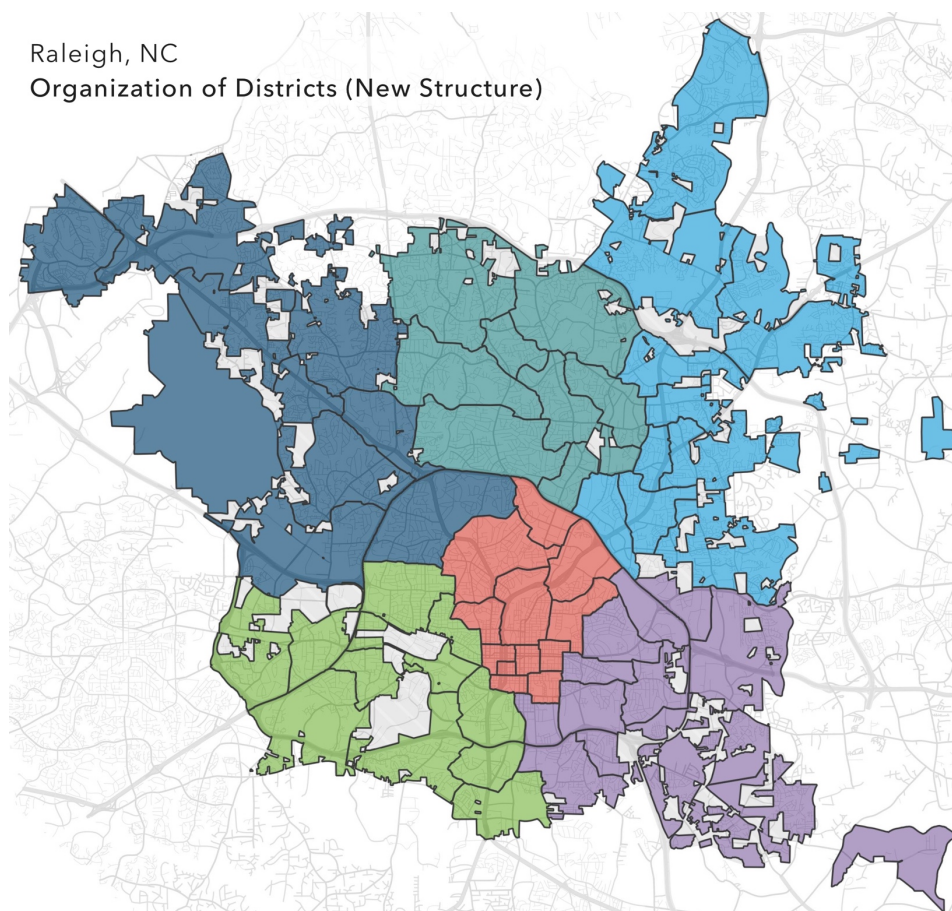
There are advantages to designing districts around a defined region with common issues throughout its beats. This allows specialized resources, such as community policing and crime analysis products, to be more focused and have greater effect if, for instance, five beats with an auto theft problem were located within one district, rather than five different districts. In the proposed alignment of the districts, this has largely been the central aim in allocating beats among the six districts.

Nonetheless, there are valid reasons for placing a focus on equalizing the total workload handled by each district as much as possible. The spans of control and the



duties handled by each district captain should be comparable. Departments must balance the benefits of organizing districts around ‘themes’ and geographical/intra-district travel factors versus the spans of control and responsibility placed under each department head.

As a reference, the proposed realignment of beats and districts is presented once again in the map below, assigning a unique color to each district:

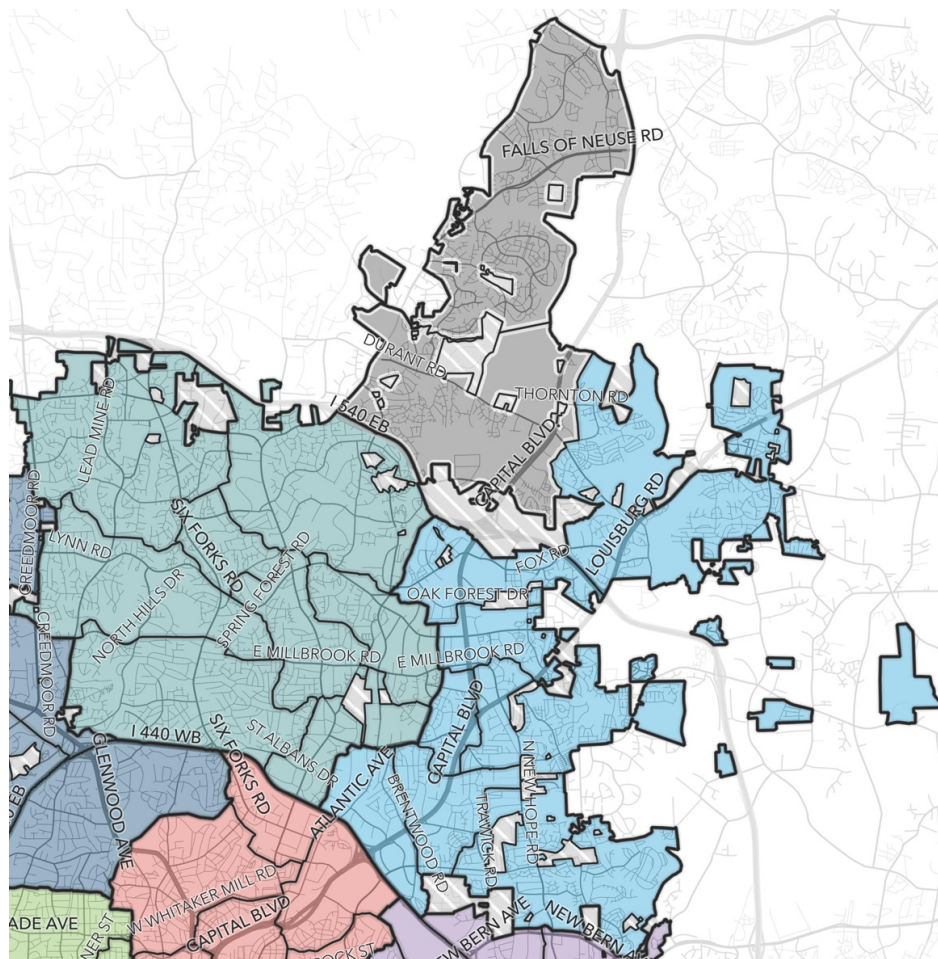


There are, of course, a number of alternative arrangements that may be made to the proposed alignment of beats to the districts. While we recommend that the proposed district alignment be maintained as in the map above, the following section provides an outline of several of the most viable alternative assignments for the department to consider.

### Alternative #1: Allocate the Northeast Corner of Raleigh to the North District

In the proposed district alignment, the two beats form the upper northeast area of the city are placed under the organization of the Northeast District. The two beats largely fall between Falls of Neuse Road and Capital Blvd, and are without neighboring beats to the west, east, and north. As a result, they are naturally isolated from the rest of their district – or any other district, for that matter.

The map below displays this area, including both the entire North and Northeast districts, with the two beats in question shaded gray:



The alternative arrangement would be to locate them within the North District, which, in the proposed district reconfiguration, is relatively small compared to the other districts.

In examining the advantages for and against this alternative, it is again worth noting that response time management within a district is not a particularly important consideration, given that AVL ensures that the nearest vehicle is always dispatched to high priority incidents. Regardless, given the transportation networks of the nearby beats in both districts, capability for backup to the two beats about equal. As a result, the decision on whether the two beats should be located in the North or Northeast District primarily revolves around two factors – the benefits provided by organizing districts around certain ‘themes’ and issues, and the spans of control under each district captain.

The following table compares the advantages of organizing the two beats in either district:

**Comparison of the Options for Organizing the Two NE Corner Beats**

<b>Proposed Design: Allocated to Northeast District</b>	<b>Alternative Design: Allocated to North District</b>
<ul style="list-style-type: none"><li>• The Northeast District is organized around directing efforts toward Capital Blvd – removing these beats would be contrary to this aim</li><li>• Northeast District officers have better access to transportation routes into the two beats – Northwest officers, by comparison, are limited to only Falls of Neuse and one other minor arterial road through I-540</li></ul>	<ul style="list-style-type: none"><li>• In the proposed district structure, North District is currently much smaller than the other districts – reallocating the two beats would help improve the balance between each</li><li>• Activity surrounding Falls of Neuse Rd is one of the most central features in the proposed design of the North District–allocating the two additional beats would further this focus</li></ul>

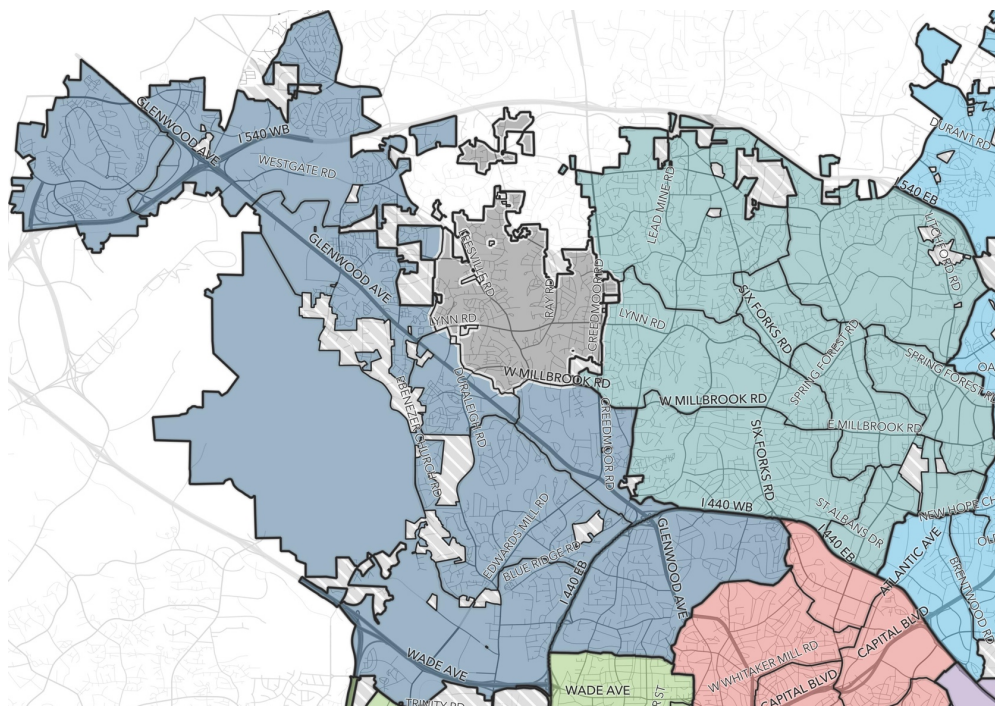


There would be minimal impacts resulting from the alternative arrangement, although given the organization of the Northeast District around Capital Blvd, we recommend that the two beats continue to be organized under the Northeast District.

**Alternative #2: Transfer the Lynn-Millbrook-Creedmoor Beat from Northwest District to the North District**

Echoing the point made in the previous table regarding balancing the responsibility handled by each district, there is an additional option for transferring an additional beat to the North District. Under the proposed beat structure, the Northwest District contains one beat in particular that, given the transportation networks of both districts, could just as feasibly be organized under the North District instead.

The beat in question is displayed in the map below, and is shaded gray for clarity:



The following table compares the advantages of organizing the two beats in either district:

**Comparison of Options for Organizing the Lynn-Millbrook-Creedmoor Beat**

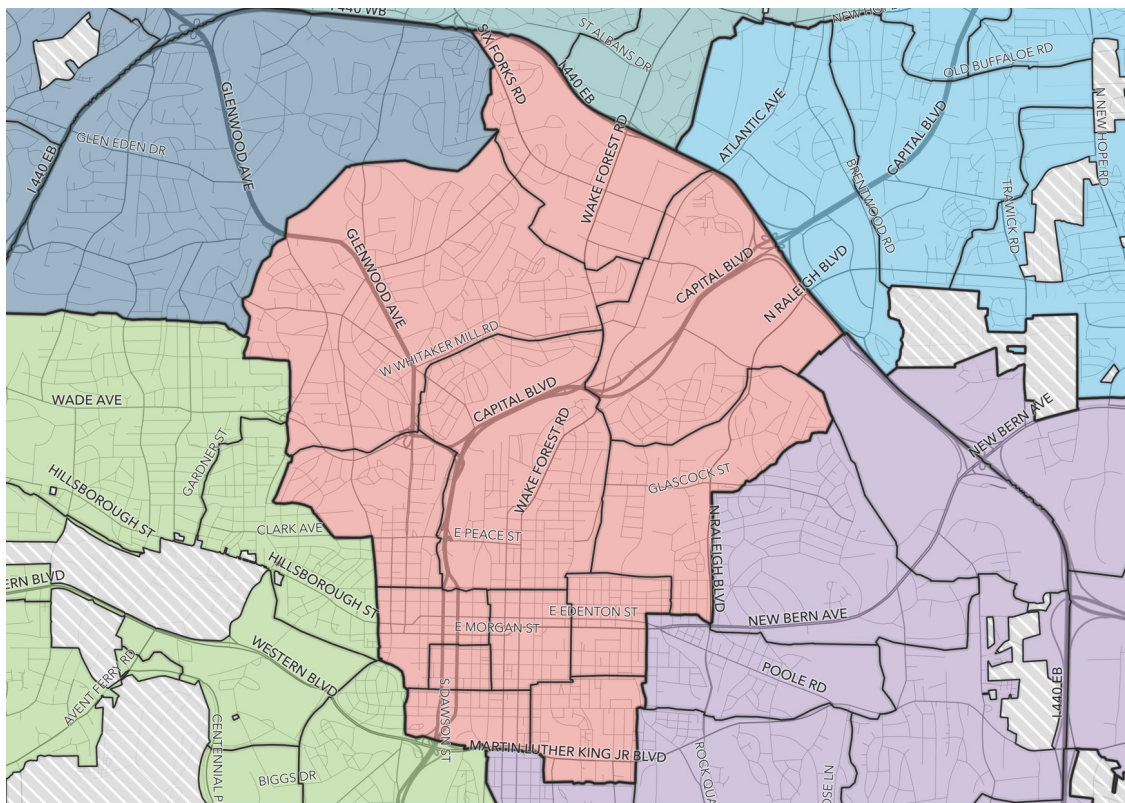
Proposed Design: Allocated to Northwest District	Alternative Design: Allocated to North District
<ul style="list-style-type: none"><li>• Better backup availability in the Briar Creek area – transferring the beat to the North District would reduce the number of beats in close proximity to the area</li><li>• Due to the close proximity of the beat to the Northwest District's 'main road', Glenwood Ave, a number of AVL-dispatched calls would likely be assigned to North District officers</li></ul>	<ul style="list-style-type: none"><li>• Under the proposed district structure, the North District is currently much smaller than other districts – reallocating the beat would work achieve a greater balance</li></ul>

While there are some minor concerns with placing the beat under the responsibility of the North District, it is a comparatively more viable option than the previous alternative to achieve a better balance of workload between each beats. If the change is made, five officers should be transferred from the Northwest District to the North District to compensate.

**Alternative #3: Reallocate the Northernmost Beats Within the Downtown District**

Under the proposed district alignment, the Downtown District contains several beats within its northern area that could alternatively be reallocated to the Northwest, North, and Northeast districts. These three beats are organized around the southernmost areas of Glenwood Ave, Wake Forest, Rd, and Capital Blvd – all major design focuses of each district, respectively.

The following map depicts the Downtown District and its immediate vicinity:



Many of the considerations for and against reallocating the Downtown District's northernmost beats are linked to the implementation of the recommendations for the creation of a flex unit, as well as the recommended changes to the organization and operational priorities of the community policing teams. This is due to the large numbers of staff that are often required in the Downtown District during periods of high activity (e.g., weekend night or special event). While other districts experience variations in call activity at different hours and days of the week, the relative increase in workload handled by the Downtown District at these times is far greater than in any other district.

To provide effective law enforcement services during these times, it is necessary to provide a combination of proactive patrol and targeted enforcement, while also maintaining an ability to respond to calls for service without generating a significant backlog. Without additional flexible resources, the Downtown District benefits from

having a larger number of beats, as there is a larger pool of officers available to be for redeployment during periods of high activity, without having to rely on resources from other districts. Of course, this strategy also presents negative impacts, as redeploying beat officers decreases the level of service rendered in their areas. Nonetheless, if the flex team and community policing changes are not implemented, it is not feasible to reallocate the three northern beats to other districts.

Assuming that the recommended changes are implemented, however, the advantages of having additional officers 'pooled' becomes less of a concern. As stated previously, the three beats in question are organized around major streets that form the core of the three districts that they could be alternatively assigned to – Glenwood Ave (Northwest District), Wake Forest Rd and Six Forks Rd (North District), and Capital Blvd (Northeast District). Given these considerations, there are certainly advantages toward reallocation of one or more of the three beats.

Nonetheless, there are also a number of advantages to maintaining the three beats within the Downtown District. I-440 forms a natural district barrier from a transportation standpoint, as well as from the perspective of integrating logical community and neighborhood barriers. Keeping additional officers available within the district during periods of high activity, while perhaps not the most important reason for maintaining the three beats within the Downtown District, is worth noting.

As a result of these considerations, if the northern area of the Downtown District is to be adjusted, the changes should be relatively limited, with only one or two of the beats being reassigned to another district. Among the options for doing so, transferring the northernmost beat in the district, which is centered around Wake Forest Rd across I-

440, to the North District is the most viable of the three, given the structure of the North District and its comparatively smaller size under the proposed district alignment changes. Reorganizing the beat centered around Capital Blvd under the Northeast District would also be very feasible for largely the same reasons – the street is integral to the design and focus of the district.

**Recommendation: Allocate patrol beat areas to districts as recommended in the proposed new beat structure, adopting none of the alternative options.**

**However, after the beat structure has been in place for a period of one year, evaluate whether transferring any of the five beats discussed in this section to other districts would result in improved service levels in those areas. After reviewing workload data and gaining input from key stakeholders, make a decision on whether or not they should then be transferred.**

## 5. PATROL DEPLOYMENT STRATEGIES AND ALTERNATIVES

This section of the report examines other issues in the utilization and management of field resources in Raleigh.

### 1. ALLOCATION OF PATROL STAFFING RESOURCES

Given that districts do not have equal workload levels, it is important for staffing allocations to be balanced around current workload. This is already somewhat, as staffing levels are different in each beat, as well as the additional squads attached to the Southeast District. However, the department does not currently have a formal process for balancing these staffing allocations.

The following table compares the number of patrol officers allocated to each district, their current combined workloads, as well as the ratio of those two numbers:

**Workload Per Officer by District (Current Beat Structure)**

District	Actual Patrol Officers	Actual Patrol Officers	Workload Hours Per Officer
Downtown District	44	26,174	594.9
North District	64	45,447	710.1
Northeast District	48	33,266	693.0
Northwest District	41	24,808	605.1
Southeast District	62	46,764	754.3
Southwest District	56	34,463	615.4
Average	53	35,154	662.1

The table illustrates that staff are not efficiently redistributed based on workload levels. An officer in the Southeast District, for example, must handle approximately 26.8% more workload compared to an officer assigned to the Downtown District. As a result of these imbalances, it is important for a regular process to be maintained by

which workload levels per staff are reviewed and used to determine if any reallocations of patrol staff should be made.

**Recommendation: Every six months, review officer workload levels in each district and transfer staff as needed when significant disparities are identified.**

## **2. COMPARATIVE ASSESSMENT OF THE CURRENT 12-HOUR SHIFT SCHEDULE AND LEADING ALTERNATIVES**

### **(1) Introduction and Assumptions Used in the Analysis**

At the core of the discussion of maximizing deployment efficiency is the choice of deployment schedule used by the department, presenting important considerations in regards to officer availability, proactive patrol capabilities, and employee attrition, among others. There are a number of contrasting factors that contribute to decisions on implementing a specific shift schedule, as there are often significant tradeoffs between each option – for instance, while one shift schedule may be more efficient than another in matching staff resources to workload patterns, it may have an adverse effect on employee morale or even patrol officer performance.

The current system used by the department is a 12-hour shift schedule using six teams (nine in the Southeast District), which alternate working day and night shifts every three weeks. A leading alternative to this configuration is the 10-hour shift schedule, which allows for more days off per week than the 8-hour shift, while presenting fewer perceived issues with sleep quality and exhaustion compared to the 12-hour shift schedule. However, unlike the 12-hour shift, which allows for 2,184 annual work hours, most 10-hour shift schedules are based on 2,080 annual work hours per year – presenting key implications for proactivity levels and deployment efficiency.



The analysis contained in this chapter presents an evaluation of the merits of both shift schedules, as well as a review of the current state of research on their effects on patrol officer performance, safety, and quality of life. It is worth noting that any patrol officers have had significant experience under both shifts, as the replacement of the 10-hour shift schedule in favor of the 12-hour shift is a relatively recent adjustment. For the purposes of this analysis, although many departments patrol continue to use the 8-hour shift schedule for patrol units, this analysis will focus exclusively on the 10 and 12-hour shifts.

### **(3) Department Attitudes Toward the 10 and 12-Hour Shift Schedules**

The 12-hour shift schedule is largely unpopular within the department, according to the results of the employee survey conducted for the study. The interviews and ride-alongs conducted by the project team largely confirmed these attitudes, as well as a significant, although not universal, preference for the 10-hour shift schedule. The employee survey also found this through the written response and comment sections, as the multiple choice questions only asked respondents if they would prefer a different shift schedule – as opposed to specifically naming the 10-hour shift.

Among all respondents, 68.5% indicated that the current shift schedule is *not* optimal for patrol officer performance. In response to the statement: “I am content with the current 12-hour shift schedule, and would not prefer switching to a different schedule,” approximately 57.8% of respondents selected either disagreed or strongly disagreed. These majorities are particularly interesting given that no alternative schedule is presented – the qualities and effects of the 12-hour system itself were considered unfavorable. Given a number of the open-ended comments and the



responses other questions on the subject, it can be assumed that court time plays a significant role in the strong sentiments against the 12-hour shift schedule. If an officer working the night shift must be available to come into court time in the morning, it is possible that their performance the following night could be impacted. While this would affect officers working at night in any shift schedule, the issue is undoubtedly made more severe by any additional exhaustion or loss of sleep quality due to the length of 12-hour shifts.

### **(3) Patrol Officer Deployment Efficiency and Proactivity**

Despite current attitudes in the department toward the 12-hour shift, there are many advantages to the schedule in comparison with the alternative 10-hour schedule. Primary among them is the efficiency of deploying staffing resources – unlike a 10-hour schedule, the 12-hour shift divides into 24, significantly decreasing the number of staff that are needed to fill constant minimum staffing standards, as one fewer shift is used. In addition, most 10-hour schedules reflect a 2,080-hour work year, which is slightly less in comparison to the 2,184 annual work hours in the 12-hour shift. As a result, fewer positions must be allocated in order to reach a certain level of patrol proactivity.

Using the same data and calculation process employed in the proactivity analysis chapter of the report, the table below outlines how a 10-hour shift system would affect overall patrol proactivity levels, using current staffing workload factors:

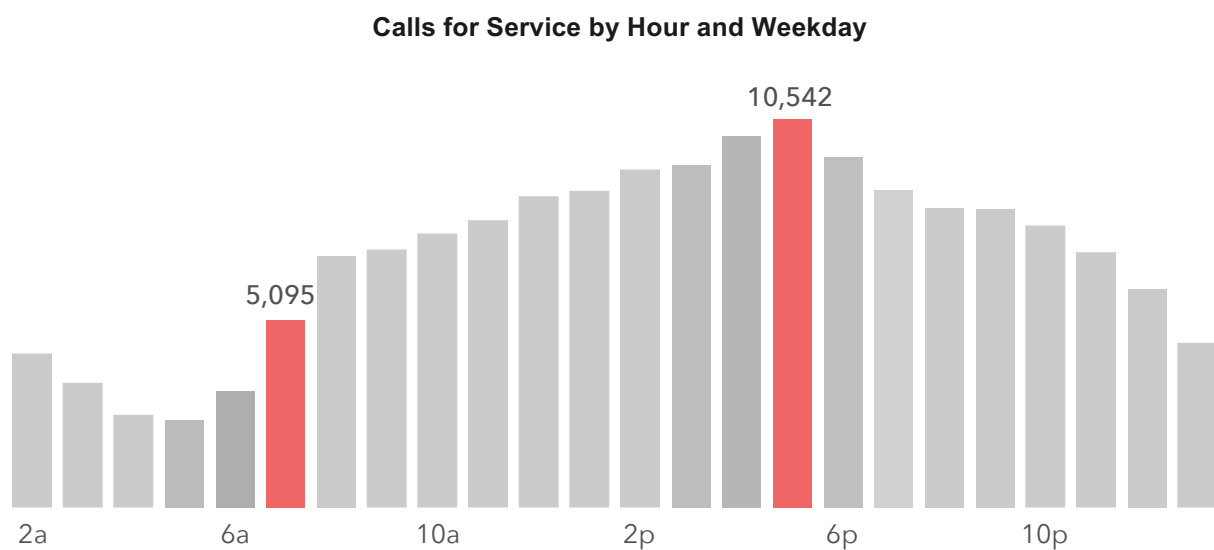
**Expected Proactivity Levels Under 10 and 12-Hour Shift Schedules**

Category	10-Hour Shift	12-Hour Shift
Total Annual Work Hours	2,080	2,184
Net Available Work Hours	1,462	1,566
Total Staffing Hours	452,852	493,320
Overall Proactivity	53%	57%

As indicated in the table, differences between the 10 and 12-hour shift schedules in overall proactivity levels are relatively minor, and do not result in significant changes to service delivery levels.

A core advantage of the 10-hour shift is the ability for staff to be more effectively deployed against changes in workload levels by time of day, however, given variations in call volume over an entire 24-hour period. With three shifts, start and stop times can be adjusted to provide overlapping resources during key time periods. Additional staff can be assigned to busier shifts to minimize the amount of excess uncommitted staff time during low-activity hours. In the current 12-hour shift, by contrast, staff are deployed at the same levels throughout the day. As a result, strategies for maximizing deployment during certain time periods are limited.

However, this is largely mitigated by patterns in Raleigh's community-generated workload, which does not vary as extensively throughout much of the day as in many other departments. The following chart presents these trends, displaying the number of calls for service by hour of day across all districts:



As illustrated by the chart, call volume largely ‘plateaus’ for the majority of the day, with relatively few hours of low activity falling outside of this range – largely negating the workload optimization benefits of the 10-hour shift.

Furthermore, fewer officers are required in order to staff beats throughout the day without a complex arrangement of staggered start times, or by switching officers between beats in the middle of their shift. While the exact effect of this not easily measured, it can be assumed that the amount of time that an officer has spent in a beat increases their experience and expertise in addressing the specific issues, repeat offenders, and place manager contacts within that beat.

#### **(4) Officer Performance, Safety, and Quality of Life**

Many academic and non-profit research studies have been conducted to evaluate the differences between various shift types, focusing particularly on the effects of shift schedules on a number of factors, which typically include officer fatigue, sleep quality, alertness, and overall quality of life, among other considerations.

However, it is difficult to draw board conclusions from the current body of research, as the results from many of these studies demonstrate insignificant differences between shift schedule types, or otherwise contradict the results of others<sup>1</sup>. Furthermore, a large portion of the research is limited in scope toward the comparison of 8-hour and 12-hour shift schedules, excluding the 10-hour option in the analysis. For all of the reasons stated above, there is not sufficient evidence to conclude that the 12-

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<sup>1</sup> Amendola, Karen L., David Weisburd, Edwin E. Hamilton, Greg Jones, and Meghan Slipka. "An Experimental Study of Compressed Work Schedules in Policing: Advantages and Disadvantages of Various Shift Lengths." *Journal of Experimental Criminology* 7.4 (2011): 407-42.

Bendak, Salaheddine. "12-h Workdays: Current Knowledge and Future Directions." *Work & Stress* 17.4 (2003): 321-36.

Vila, B., G. B. Morrison, and D. J. Kenney. "Improving Shift Schedule and Work-Hour Policies and Practices to Increase Police Officer Performance, Health, and Safety." *Police Quarterly* 5.1 (2002).

hour shift is inherently detrimental to patrol officer performance and safety. Likewise, there is no evidence to support the idea that the 10-hour shift is preferable to officers over the 12-hour shift on a national level.

Despite these limitations, these studies highlight certain considerations that must be made in comparing shift schedule types, such as the impacts caused by shift rotations on patrol officer safety and quality of life. In comparison with the 10-hour shift schedule, which often features extended periods of assignment to a shift period, the length of shift rotation periods in the 12-hour shift rotations plays a significantly greater role in 12-hour shift. Research suggests that it can take 8 to 12 days to fully adjust to a change from the night shift to day shift<sup>2</sup> on the 12-hour schedule, which may potentially result in negative overall effects on officer fatigue and alertness levels if the rotations are made too frequently. Issues resulting from shift team rotations are not unique to the 12-hour shift however, and should be viewed marginally in comparison with other schedule types.

The lack of clarity in identifying measurable tradeoffs between each shift type may very well be attributed in large part to the unique factors shaping the experience of patrol officers in the various departments being studied. Patrol divisions with severe staffing constraints will likely have different perceptions toward each shift in comparison with those that have high levels of uncommitted officer time. To this point, there are many issues that affect some departments more than others, such as off-duty court time and training, which have varying impacts to officer performance and quality of life on each shift schedule.

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<sup>2</sup> Vila, B., G. B. Morrison, and D. J. Kenney. "Improving Shift Schedule and Work-Hour Policies and Practices to Increase Police Officer Performance, Health, and Safety." *Police Quarterly* 5.1 (2002): 14-15.

#### **(4) Conclusions**

From a staffing and deployment perspective, there are no significant reasons to transition to the alternative 10-hour shift schedule. Analysis of community-generated workload levels throughout the day suggests that these patterns are better reflected by the 12-hour shift. To this point, proactivity levels are slightly higher under the 12-hour schedule.

From the same perspectives of staffing and deployment, however, the current 12-hour shift does not represent a significant improvement over the alternative 10-hour shift. While proactivity does not fall by a large amount despite the decrease in the number of annual work hours per officer, it could be expected that officer morale would improve markedly by adopting the 10-hour shift.

One of foremost remaining differences between the two shift schedules is the effectiveness of the beat system philosophy, and its role in community policing. Because of the overlap in shift periods, it requires more staff to constantly staff each. More importantly, beats will less consistently be staffed with the same patrol officer, as numerous tradeoffs would need to be made in the officers' beat assignments as shift periods transition. Because the overlaps reduce the ability and time officers have available to engage in the issues facing specific communities, their ability to conduct problem oriented policing activities is lessened as a result. Given that, with the exception of employee morale, tradeoffs between the two shift schedules are largely insignificant or slightly favor the 12-hour shift, we do not recommending transitioning away from the current shift schedule.

However, the finding is contingent upon the improvement and mitigation of the factors contributing to the negative views toward the 12-hour shift schedule. The following section will further examine these factors and identify potential solutions to address their root causes.

#### **(5) Improving the 12-Hour Shift Schedule**

The focus then becomes developing strategies to mitigate the adverse effects of the 12-hour shift system, such as the issue of court time on days off – and in particular, when officers must do so when night shifts. The foremost approach to the problem is to maximize the percentage of officer court time that occurs on-duty. If an officer is expected to appear in court several times during a given week, scheduling adjustments can be made to keep the officer on the day shift longer and cover the court days. While this makes shift team scheduling more complex and difficult for several reasons, it would lessen the effects generated from significant court time. There are also a number of departments that provide sleeping areas for off-duty personnel required to appear in court that day.

Conducting training while off-duty also contributes to the issue, as it represents another factor that would cause officers working nights to come in on their day off immediately after finishing a shift. While the changes to scheduling negatively affect the number of hours patrol officers are actually working in the field, the maximization of proactive time levels is not currently an issue for the department. Effectively, there is room to spare in officer availability levels to accommodate these changes. The proactivity calculations earlier in this report even assumed that all 56 hours of training factored into the analysis occurs off-duty, even though that is not necessarily the case in

reality. If on-duty court time were to double as a result of there being less off-duty court time, the difference in overall proactivity levels would amount to approximately 0.55% – a largely negligible impact.

**Recommendation: Make changes to shift rotation schedules on an individual basis as necessary to maximize the percentage of court attendance that occurs on days that officers are on-duty.**

**Recommendation: Develop a plan to stagger training schedules in order to allows for all in-service training to be conducted while on-duty.**

### **3. DEPLOYMENT AND PROACTIVE ENFORCEMENT WITHIN THE DOWNTOWN ENTERTAINMENT DISTRICT**

#### **(1) Current and Anticipated Issues**

The downtown entertainment and hospitality district, including areas of Glenwood Ave, as well as the central core of the Downtown District, is a rapidly growing and developing area that includes a number of bars, clubs and other nightlife establishments. The entertainment areas are responsible for a significant portion of the workload handle by RPD units in that region, with much of the workload occurring during specific times, such as Friday or Saturday night. As a result, these situations often put a severe strain on the resources of the district, requiring a significant officer presence to be concentrated downtown. Many of the crimes and calls for service occurring during these times also revolve around certain themes – whether they are alcohol-related or resulting from specific causes, such as overcrowding and inadequate situations.

These issues have been identified by a number of sources, including the community survey, employee survey, and ride-alongs with patrol officers in the field, as well as a number of interviews that our team has conducted with police department and

city leadership. As the City of Raleigh continues to grow at a significant pace – and particularly as high-density residential living evolves in the area – demand for entertainment venues will continue increase as a result. Consequently, the potential for crimes and calls for service to occur in these areas will also increase, demanding that coordinated efforts be taken not only in response to such events, but to work proactively in order to maintain and improve public safety in those areas.

## **(2) Creating a Coordinated Strategy with Other Agencies**

It is critical that a holistic approach be taken in the development of a strategy for furthering the safety of the entertainment district, integrating and aligning the roles played by other city agencies under a common set of objectives. To create a more unified response to public safety in the entertainment district, we recommend that an interdepartmental task force committee be organized, including representatives from a number of city agencies, such as the Police Department, City Council, Planning, the City Manager's Office, and Public Works. The task force would meet bimonthly, focusing on:

- Establishment of a consensus on inspection needs – including frequency and protocols
- Streamlining of city ordinances and other local rules or regulations that impact the functioning of the entertainment district
- Enhanced communication on addressing specific issues
- Establishment of shared goals and mission
- Development of a plan and strategy to address noise issues for local residents

It is also possible to bring business and community stakeholders into the committee as needed, including venue owners and neighborhood organizers. By doing



so, their knowledge of the problems and their causes is furthered, and additional lanes of communication are opened between community leaders and law enforcement<sup>3</sup>.

**Recommendation: Establish a multi-departmental task force committee in order to develop strategies to address public safety concerns in the downtown entertainment district, meeting bimonthly.**

### (3) Proactive Code Enforcement

In order to reduce levels of crime and disorder in the entertainment issue, it is essential that the core of the focus be placed on proactive enforcement activities. While officers having officers on the scene on a Friday or Saturday night is key for managing situations as they take place – whether there are large crowds, fighting, or disorderly conduct events – proactive policing is able to potentially resolve issues that led to the occurrence of these incidents.

For instance, one of the leading causes of alcohol-related incidents within entertainment districts is a lack of proper security at venues<sup>4</sup>. By performing irregular, unannounced inspections on compliance with municipal and state codes, a culture of police oversight and professionalism is furthered among club owners and venue security staff. Potential enforcement areas of priority include inspecting for safety code violations, such as blocked entrances and locked exit doors, presenting additional opportunities for officers to engage the venue owners and staff in resolving issues that increase the likelihood of incidents from occurring.

Sound management represents another key area in the mitigation of crime and disorder in entertainment districts. To provide a basis for assessing enforcement priorities, the Intelligence Center should track the location of noise complaints of all

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<sup>3</sup> Faulker, Larry D. "Safer Bars for a Safer Community Dayton, Ohio." Center for Problem Oriented Policing, 2011.

<sup>4</sup> Scott, Michael S., and Kelly Dedel. "Assaults in and Around Bars 2nd, Edition." (2006).

types on an ongoing basis. By doing so, crime prevention officers are able to identify repeat offenders and focus enforcement toward these venues in an evidence-based manner. Identified problem venues should be met with, along with nearby residents, to improve communication and develop plans to manage sound levels to an acceptable and reasonable level, reducing the chance of further complaints at those locations.

**Recommendation: Use crime prevention officers to meet with venue owners and staff to perform safety inspections, develop sound management plans, and collaboratively identify solutions to problems impacting the safety and risk of incident at each establishment.**

#### **(4) Strategies for Deployment Within the Entertainment District**

Because periods of peak activity in these areas – particularly Friday and Saturday night – often tie up the vast majority of resources in the Downtown District, officers are drawn away from their beats, and are often deployed in a foot patrol capacity. However, in this manner of deployment, if a critical call for service occurs at the other end of the district, their ability to respond quickly is diminished in comparison to officers in other districts. Despite this limitation, foot patrols represent an effective method of policing entertainment district during peak hours.

In order to solve both of these issues, additional resources should be deployed to the entertainment district areas on days where call activity is the highest. Because these officers would be operating in a foot patrol capacity outside of the existing beat structure, it is preferable for them to come from outside the normal patrol structure. Furthermore, deploying officers from outside of normal patrol functions prevents beats from becoming unstaffed for extended periods of time due to the foot patrols. As a result of these factors, we recommend that community policing officers be deployed flexibly within the entertainment districts during periods of high activity.

**Recommendation: Flexibly deploy community police officers within the Glenwood South and Downtown District areas in a foot patrol capacity during expected times of high call for service activity.**

## **(5) Transit Center Policing**

Raleigh is currently in the process of constructing a new multimodal transit center in partnership with the North Carolina Department of Transportation Rail Division, targeted for completion in 2017. The facility will fundamentally change public transit of the city, significantly affecting related policing needs.

In anticipating changes to police service needs resulting from the project, it is important to consider the full scope of effects. Several additional train and bus lines are planned, which will undoubtedly increase passenger ridership numbers, which should by extension increase the number of related community-generated calls for service levels – all other factors being equal.

The Field Operations Division currently assigns patrol officers specifically to police transit areas during main hours of operation. These officers are not responsible for covering a beat assignment, and are able to dedicate their time to handling calls for services and proactively policing these areas.

As a result of these factors, we do not recommend any changes to staffing levels in order to accommodate the effects of opening the new multimodal transit center. Furthermore, because the transit center does not open until 2017 – a target completion date that has no guarantee of being met – there is insufficient need to make adjustments to the allocated number of officers at this time. However, closer to the expected completion date of the facility, any changes in calls for service levels at existing facilities, as well as changes to projected ridership growth as a result of the new

facility, should be reviewed to determine whether additional staff should be dedicated toward policing those areas.

**Recommendation: Make no changes to the number of officers assigned to policing transit areas at this time, and periodically review activity trends to determine if additional officers will be needed in the future to accommodate expansions in transit-related patrol workload.**

## **(6) Additional Policing Issues**

Several other specific issues have been identified through the course of completing the study that we have had the opportunity to examine, including mental commitments (“paper transfers”) and the policing needs in parks – particularly the recently annexed Dorothea Dix area. The effects of both, in terms of the workload generated by these calls, have been incorporated into the new beat boundaries.

Because the Greenway System is a highly decentralized network of small park areas scattered throughout the city, it would be difficult for a dedicated officer – or small team of officers – to patrol effectively without continuing to rely on patrol beat officers as the first responds to calls. As a result, these areas are more effectively served by incorporating them into the beat structure.

The workload generated by mental commitments has been included in the calls for service and workload statistics displayed throughout this report, and represent one of the most frequent and demanding calls handled by the department – particularly within the Southeast District. These calls often demand resources from the same area, unlike the workload from the Greenway System. However, because the workload varies and fluctuates significantly, the alternative of having one or two officers assigned to only handle mental commitment calls would not prove to be as effective as incorporating this workload into the new beat structure, which has been done. As a result, the beat officer

who is likely to be handling a large portion of these calls has responsibility for a markedly smaller area than most of the other beat officers.

## 6. ANALYSIS OF FIELD MANAGEMENT AND SUPERVISION

This chapter of the report evaluates issues associated with the management and oversight of field operations.

### 1. DUPLICATION AND CONSISTENCY IN OPERATIONS MANAGEMENT AND SUPERVISION OF FIELD OPERATIONS NEEDS TO BE ADDRESSED.

Field operations in any law enforcement agency cannot exist without the effective management and supervision of staff and the activities in which they are involved. The context for this is at many levels in a larger law enforcement agency, including:

- **Watch Commanders** – who have oversight of all field resources on a shift whether beat assigned, operational support or other units. Watch commanders are a check on the appropriate utilization and deployment of field personnel to handle calls for service, special projects and proactive activities.
- **Field Managers (Captains or Lieutenants)** – in larger jurisdictions which have geographical boundaries larger than beats a middle manager exists to provide oversight of that geographical entity to ensure that the needs of that area are met and that personnel are appropriately directed. Typically not field supervisors, these personnel also have shift or area administrative responsibilities.
- **Field Supervisors (Sergeants)** – A critical position in any law enforcement organization, these personnel have direct in the field supervisory control over personnel assigned in a geographical area defined by an appropriate span of control (typically in the 6 – 9 staff range).

Of course these personnel function in an environment which is defined, controlled and reviewed through policies and procedures, initial and in service training, crime analysis and operational reviews in many forms ranging from performance evaluations, Compstat types of processes and internal affairs.

This section of the report describes the approach to field operations management in place in the Raleigh, raises issues with that and makes recommendations where

appropriate.

## (1) The Current Approach to Field Operations Management in Raleigh

Raleigh, as a large organization, has each of the supervisory and management levels described above. The allocation of roles in Raleigh are described in the following table:

Position	Key Roles and Responsibilities
<b>Watch Commander Captain</b>	<ul style="list-style-type: none"><li>• Reviews start of shift field staff availability due to leaves and special assignments.</li><li>• Leads the beginning of shift roll call to transfer information between shifts and to develop daily operational priorities.</li><li>• Mentors field / District Lieutenants.</li><li>• Responds to major incidents and act as the scene commander as necessary or supervise the field command responsibilities taken by District Lieutenants.</li><li>• Leads, assist and/or coordinate after-incident reviews.</li><li>• Assists in the development and coordination of 'special projects' in the field, especially those which are multi-District in nature or involve units from the Special Operations Division.</li></ul>
<b>District Commander Captain</b>	<ul style="list-style-type: none"><li>• Performs the chief management and administrative roles for the district.</li><li>• Works with Lieutenants to formulate key opportunities for proactive enforcement in the district, coordinating external resources in support of identifying major trends in crime and service needs.</li><li>• Works with Watch Commanders to coordinate daily needs and on call responses.</li></ul>
<b>Lieutenant</b>	<ul style="list-style-type: none"><li>• Manages staff in the District assigned to each shift.</li><li>• Plans and coordinates the activities in each District daily and in the long term (e.g., special projects).</li><li>• Responds to critical calls for service as needed to coordinate resources and manage the situation.</li><li>• Supervises shift Sergeants assigned to the District.</li><li>• Coordinates with the Watch Commander and with other units (especially Special Operations).</li></ul>
<b>Sergeant</b>	<ul style="list-style-type: none"><li>• Supervises a group of Officers in the field and performs regular performance evaluations.</li><li>• Responds to calls for service as needed to supervise Officers and coordinate resources.</li><li>• Develops prioritized approach to meeting the needs of the assigned areas and staff under supervision.</li></ul>

To summarize the system of field management and supervision in the Raleigh Police Department, each position plays the following generalized roles:

- Watch Commanders – are Citywide resource managers.
- District Commanders – are District resource managers and administrators.
- District Lieutenants – are shift managers within a District.
- Sergeants – Directly supervise a group of Police Officers within a District.

In Raleigh, in theory, these roles are distinct and clearly delineate management from supervisory duties. In practice, however, these roles are less distinct. The next section discusses issues with the Department's practice of operations management.

## **(2) Issues with the Raleigh Police Department's Approach to Operations Management.**

Interviews of Raleigh Police Department managers and supervisors indicate that the roles described above are, in practice, blurred and inconsistent. These issues can be summarized, as follows:

- **Sergeants and Lieutenants often duplicate roles as first line supervisors** – in practice, Lieutenants are seen to function as 'super sergeants', in the field most of the time with roles often indistinct from Sergeants as that relates to Police Officer supervision, development of prioritized plans, etc. In practice, this diminishes the roles of Sergeants as first line supervisors.
- **Lieutenants and District Commanders often duplicate roles as district managers** – in practice, Lieutenants are seen to function as organizers and managers of field operations in a district. This results in Lieutenants having little role in district administration and makes the district commanders pure district managers. This diminishes the roles of Lieutenants as district managers.
- **District Commanders and Watch Commanders** – in practice, Watch Commanders and District Commanders have roles in inter-district coordination; in practice, Watch Commanders often respond in the field for more than the highest priority calls for service – in 2014, Watch commanders responded to 664 incidents, almost twice each day, with many if these incidents being for lower priority calls for service. This blurs the roles of both District and Watch Commanders as that relates to field operations.
- The issues described above, though blurred in general are not consistent by person in each role, by the situation, by perceptions of the roles of others (e.g., specific watch commanders of specific lieutenants, etc.).



- The lack of distinction in the roles of each protagonist in the management and supervision of field operations has resulted in functional gaps, including the following:
  - In spite of a robust and developing approach to ‘intelligence led policing’ and advanced crimes analysis, in general, the development of specific plans for the amount of field proactivity available is not a role consistently played by either Sergeants or Lieutenants.
  - Overall management of field operations, including the coordination of cross-District and cross-Division activities and special projects is reactive and based on a plan. While many cross District and cross Division ‘special projects’ and task forces relating to robberies, drunk driving and traffic enforcement, for example, these are often based on reactive factors (e.g., complaints, spikes in crime, etc.).

These are organizational, operational and management issues which should be addressed by the Department. These issues impede the effective management and supervision of field operations and it has the potential to impact the best use of field personnel toward problems in the community.

### **(3) Opportunities Exist to Clarify the Roles of Field Supervisors and Managers.**

The project team believes that policy needs to be developed which clarifies the distinction in roles among all of the levels of field supervisors and managers. The distinction needs to be made at both the supervisory and command levels. While there needs to be some level of overlap at each level in the management of field operations, these roles need to be complementary rather than duplicative.

The key to distinguishing the roles and responsibilities for these two sets supervisory and mid-management roles are outlined in the following table:

**Key Responsibilities of “Ideal” Sergeants and Lieutenants**

High Priority Job Responsibilities – Sergeant (1 <sup>st</sup> Line Supervisor)	High Priority Job Responsibilities – Lieutenant (Middle Manager)
1. Ensure police work being done is of high quality, within policies and community needs	1. Set goals and measure unit/teams performance.
2. Ensure officers have the skills to do their existing jobs well	2. Push information down to the unit and up to higher command levels
3. Ensure accurate and timely information is going up and down in the organization	3. Create a motivating environment for the Sergeants and other direct reports
4. Create and maintain a motivating environment in which the officers work	4. Develop and manage budgets for the unit/teams
5. Develop and maintain an effective team of officers and/or civilians	5. Coordinate and balance workloads within unit or among teams
6. Take charge when needed to control a complex work situation	6. Assume command at challenging events or for sensitive issues for the department
7. Ensure staff are working safely	7. Remove or mitigate obstacles affecting the results of Sergeants
8. Evaluate performance for annual assessments	8. Function as resource for human resources issues.

As the table shows, while many of the roles of field supervisors and mid-managers are complementary they center around Sergeants being direct first line supervisors and Lieutenants functioning at more of a management level in terms of administration, performance management and cross functional coordination.

To make the roles of District Captains and Watch Commander Captains more distinct would require the following kinds of functional allocations of roles and responsibilities:

### Key Responsibilities of an “Ideal” District Captain and Watch Commander Captain

High Priority Job Responsibilities – District Commander	High Priority Job Responsibilities – Watch Commander
1. Develop district goals, priorities and community action plans	1. Ensures that goals and priorities are met citywide.
2. Communicate to Lieutenants and assigned staff organizational and operational issues	2. Communicate to district commanders the operational issues of the day; initiate briefings
3. Motivate and direct the career development of Lieutenants	3. Monitor daily operational issues; monitors performance
4. Ensure that community needs are priorities are met; meet with the community	4. Enlist the assistance of cross district cooperation and teams
5. Act as top managers for staff assigned to the district.	5. Enlist the assistance of cross division cooperation and teams
6. Assume command at challenging events or for sensitive issues for the department	6. Ensure that operational and community policing plans exist and are fit into the day
7. Development of the budget for the district; develop needs assessments for future needs	7. Review field operational policies and other improvement opportunities
8. Work within a team of other district commanders.	8. Overrides response policies as necessary for a particular situation.

The Department should conduct an organizational planning session involving Sergeants and Lieutenants to make the roles of first line supervision and middle management more distinct and consistent.

**Recommendation:** The Chief should initiate a process to make the roles of supervisors (Sergeants) and managers (Lieutenants and Captains) are more distinct and consistent. While this internal process will develop roles appropriate for Raleigh the focus should be on strengthening Sergeants as field supervisors, Lieutenants as shift managers and assistant District administrators; District Commanders in charge of resources and community service; and Watch Commanders as citywide resource coordinators.

#### **(4) The Number of Lieutenants Authorized in Field Operations**

The project team within the focus on district management also examined the command structure of staff in place – that is, the number of Captains and Lieutenants in the organization. Currently, each district has a Captain (District Commander) and four (4) Lieutenants – one for each squad. At the time that field work was conducted eight (8) of the 32 Lieutenant positions was vacant leading to the question about need. The following points should be noted:

- Because of the current lack of clarity / distinction in roles between Sergeants and Lieutenants in the Department, the lack of 25% of the authorized Lieutenant positions is not serious.
- However, the preceding assessment of roles indicates a need for a mid manager in field services and for this need to be filled around the clock.
- While the Department could fill only enough positions to field Lieutenants on night shifts, if Lieutenants were reduced in this way they would never rotate shifts as is the case with other staff. Moreover, it would diminish the roles that District Captains play in administration and management.
- With spans of control of only 2 – 3 sergeants per shift there is considerable capacity for Lieutenants to have expanded roles in administration freeing up District Captains for broader community roles.

The need for Lieutenants is less if the roles changes described previously are not implemented.

**Recommendation: Retain the number of Lieutenants in the organization but only within the context of role changes needed to distinguish their positions from field Sergeants.**

#### **(5) The Number of Sergeants Required in Field Operations**

Finally, the project team also examined the span of control for Sergeants in Field Operations – a key issue if, as the project team believes, that Sergeants are a fundamental element in the delivery of effective and efficient patrol services. The table,

below, summarizes the spans of control for field supervisors are the time that field work was conducted at the beginning of 2015.

**Field Operations Supervisory Spans of Control**

District	Sergeants (Auth.)	Officers (Auth.)	Officers (Filled)	PO (Auth.) / Sergeants
Downtown	8	46	44	8.3
North	8	66	64	8.3
Northeast	8	49	48	6.1
Northwest	8	43	41	5.4
Southeast	12	72	62	6.0
Southwest	8	59	56	7.4
Average	52	335	315	6.4

The project team believes that field supervisors should have spans of control in the 1:6 – 9 range. This range can ensure that field supervisors have at least one field contact with each assigned police officer. Typically, agencies are at the low end of the range of the force is comprised with less experience staff or if beat areas are large. Broader levels of field supervision can be appropriate with a more experienced workforce. The project team believes that spans of control are appropriate for Raleigh's Field Operations Division.

**Recommendation: Spans of control are appropriate for field supervisors in patrol.**

## 2. THE COMMUNITY POLICING PROGRAM NEEDS STRUCTURE

The structure of the 'community policing program' in Raleigh recognizes that staff contribute objective in a number of important ways:

- There are expectations for all staff assigned to the Field Operations Division to be involved in 'community policing' in their assigned areas by focusing on problems in that area as well as interactions with the community.
- Training, supervision and policies support the objective of positive community interactions and a form of problem oriented / community oriented' policing program in Raleigh.
- Crime analysis, historically, and the implementation of the Intelligence Center more recently, support Field Operations by providing real time crime and service information as well as analysis of crime and service trends throughout the City.
- Each District has dedicated Community Policing staff assigned. At the time at which the project team conducted its fieldwork the number of authorized staff assigned to Community Policing was, as follows:

District	Sergeants	Community Policing Officers	Crime Prevention Specialists
Downtown	1	6	1
North	1	4	1
Northeast	1	4	1
Northwest	1	3	0
Southeast	2	10	1
Southwest	1	3	1
Total	7	30	5

Community policing staff are involved in diverse activities, including:

- Support for community groups (e.g., literature, research).
- Meeting with neighborhood and community groups.
- Responding to on line requests for service (i.e., SeeClickFix).
- Working with children in sports and other after school programs.
- Enforcement in a community policing / problem policing environment.
- Finally, a Community Policing Liaison staff position, a civilian, exists to assist with the coordination and outreach to the community.

This structure to community policing has all the hallmarks of a comprehensive and thorough program. In many respects it is as demonstrated by the following:

- The fact that dedicated positions have been created and utilized in each District is positive, especially when many comparable communities have reduced or eliminated such positions in the recent Great Recession.
- Similarly, the emphasis on “data driven” policing through enhanced analytical efforts provides an important core to directed proactive activities.
- As shown in the previous chapter of this report, not only do field patrol units have extraordinarily high levels of proactivity available (overall about 57%), officers use it to generate activity. At 80% of the number of community generated (i.e., reactive workloads) officer initiated (i.e., proactive) workloads is the highest encountered by the project team in the study of field patrol operations.
- Community Policing staff are involved in a wide range of community support, programs and enforcement activities throughout the City.

In spite of these very positive attributes of the community policing program in Raleigh, there are also several issues associated with its current structure, the base program or philosophy and its consistency in the City. These issues include the following:

- There is no base program or underlying principals for the community policing program.
- There is no central oversight or coordination of the community policing program in Raleigh. While a Citywide Community Policing Liaison exists this position is not a resource to community policing efforts in the Districts. The position functions as a parallel effort led by a civilian.
- Without centralized oversight and coordination the community policing programs in each of the Districts operate very differently from each other. While the table, below, is a simplified summary of the service emphasis in each District it clearly demonstrates the inconsistency evident in the program:

<b>Downtown</b>	Major emphasis on homelessness issues and programs in support of homeless individuals; interface with the business community
<b>North</b>	Major emphasis on youth oriented programs and services, especially disadvantaged youth, through sports, etc.
<b>Northeast</b>	Major emphasis on the SAFE areas in the District (mostly high density housing areas).
<b>Northwest</b>	Major emphasis on community group contacts in low crime areas and problems in multi-housing areas.
<b>Southeast</b>	Major emphasis on enforcement activities associated with code and crime problems in the District.
<b>Southwest</b>	Major emphasis on issues associated with North Carolina State University, off campus housing, etc.

While all programs support Community Action Committees (CAC's), the community policing activities vary greatly after that.

- While the community policing program has persisted through a period of economic uncertainty, the number of officer positions filled has been lower than in 'regular patrol'. This can be seen in the table below:

**Community Policing Authorized Versus Filled Positions**

District	Sergeants		Comm. Policing Officers		Crime Prevention Specialists	
	Auth.	Actual	Auth.	Actual	Auth.	Actual
<b>Downtown</b>	1	1	6	2	1	1
<b>North</b>	1	1	4	2	1	1
<b>Northeast</b>	1	1	4	1	1	1
<b>Northwest</b>	1	1	3	2	0	0
<b>Southeast</b>	1	1	10	4	1	1
<b>Southwest</b>	1	1	3	2	1	1
<b>Total</b>	<b>6</b>	<b>6</b>	<b>30</b>	<b>13</b>	<b>5</b>	<b>5</b>

As the table shows, there are 17 vacant positions in the community policing program in Raleigh.

The project team's assessment of patrol staffing needs demonstrated that a very high level of service can be provided to the City with existing assigned and authorized positions. In addition to these resources were 19 positions which were not filled at the



time of the project team's analysis. The Department has several choices for the use of these resources, including the following:

- Transfer the vacant positions, once filled, to Community Policing roles.
- However, the Department could also chose to fill some of the vacant Community Policing positions, freeing others up to create a flexibly deployed unit to address a variety of problems in the City.

A flexibly deployed unit would provide the Raleigh Police Department to address cross District issues which vary by day and week in irregular or emerging ways or in regular more predictable ways. Examples of the use of flexibly deployed resources could include the following:

- Downtown / entertainment district issues on the weekend or holidays.
- Emerging crime patterns such as serial auto burglaries in one part of the City.
- The ability to field a special enforcement team dedicated to issues such as drunk driving.

Many cities have such a team (in fact, Raleigh had one in the past). Flexible / proactive enforcement teams in other cities are cross-District resources because not all community problems are neighborhood specific. Flexible / proactive enforcement teams in other cities have variable shifts for similar reasons – problems vary by time of day and day of week. These teams are either cooperative utilizing staff assigned to each district in a floating manner. Alternatively, a unit is created which reports to a centralized supervisor or manager. While either approach can work centralized reporting has the effect of avoiding confusion of reporting responsibility, priorities and scheduling. As a result an approach that could work for Raleigh could entail:

- Creation of a four to six-person unit out of the currently vacant positions. As a result, only the remaining positions would be transferred to community policing roles.

- The flex unit would report to the central Lieutenant for Community Policing. Another approach would be to have these resources report to the Watch Commander.
- A flex unit would work a shift other than the 12 hour one used in patrol. A 10-hour shift would be more appropriate for these personnel.
- A flex unit could vary its days off, though weekend coverage for Friday and Saturday is often targeted in comparable teams in other communities.

The Raleigh Police Department cannot achieve its community policing goals with the current structure and content to the program. There are several steps it should take to resolve the issues identified.



### **Recommendations:**

- **Reflecting the goals of the Chief of Police and consistent with the City's developing strategic plan the community oriented policing program needs to address:**
  - **A statement of the value of working with the community and groups.**
  - **A focus on working with vulnerable populations and youth.**
  - **Defining what needs to be the goals for the City overall.**
  - **Defining what are appropriate goals for each District.**

**This community policing plan should be developed internally but it should include input both internally as well as externally.**

- **Create a Lieutenant position to coordinate the Citywide program, ensuring that both Citywide and District initiative are created staff are accountable for meeting these. This Lieutenant would be a resource to District community policing staff not their direct supervisor.**
- **Ensure that District Community Policing Sergeants, in conjunction with crime analysis, have a structure for community policing projects as well as providing structure to the proactive activities of beat patrol officers.**
- **Once a community policing plan has been developed, transfer unfilled patrol officer positions to Community Policing roles.**
- **In addition, directed by the Raleigh Intelligence Center (RIC) in conjunction with Watch and District Commanders, create a flexibly deployed team of**

**officers within or between Districts to address varying problems in the City. At least some of the new officers authorized for the next fiscal year could be dedicated to a Citywide flexibly deployed unit. The unit would also need a Sergeant.**

## APPENDIX A: PROFILE OF THE FIELD OPERATIONS DIVISION

### 1. INTRODUCTION

The following descriptive profile provides an overview of the Field Operations Division of the Raleigh Police Department, reflecting our understanding of the organization, operations, and management of the Division during the period in which field work was conducted at the beginning of calendar year 2105. The profile begins with an overview of the Field Operations Division as a whole, with subsequent sections detailing the staffing and organization of roles within each district. Analysis of the workload handled by patrol units in each district is contained within the main report.

### 2. OVERVIEW OF THE FIELD OPERATIONS DIVISION

In the following section is provided an overall summary of the Field Operations Division in terms of the allocation of staff and overall workloads.

#### (1) Organization and Staffing

The following table summarizes the authorized staffing levels of the Field Operations Division by section and rank/classification:

**Current Authorized Positions, Field Operations Division**

District	Maj.	Capt.	Lt.	Sgt.	Off.	Civ.	Total
Watch Cmd. / Admin.	1	4	0	0	0	1	6
Northwest	0	1	4	9	48	1	63
North	0	1	4	9	72	1	87
Northeast	0	1	4	9	53	1	68
Southwest	0	1	4	9	64	1	79
Downtown	0	1	4	9	66	1	81
Southeast	0	1	4	14	82	1	102
Total	1	10	24	59	385	7	486

It should be noted that the table above reflects the authorized staffing levels of the division, rather than the number of positions that are actually filled. Position vacancy totals are detailed later in this profile within the individual staffing tables for each district.

## **(2) Watch Commander Roles and Responsibilities**

Responsible for the management of field operations overall on each shift are four Watch Commanders who are Captains. The responsibilities the following:

- Review start of shift field staff availability due to leaves and special assignments.
- Leads the beginning of shift roll call to transfer information between shifts and to develop daily operational priorities.
- Mentor field / District Lieutenants.
- Respond to major incidents and act as the scene commander as necessary or supervise the field command responsibilities taken by District Lieutenants.
- Lead, assist and/or coordinate after-incident reviews.
- Assist in the development and coordination of 'special projects' in the field, especially those which are multi-District in nature or involve units from the Special Operations Division.

The Watch Commanders work closely with District Captains in understanding and addressing enforcement needs in their areas.

### 3. NORTHWEST DISTRICT

The table below, while not a comprehensive listing, provides an outline that summarizes the major roles and responsibilities completed by each position within the District's organization:

Function	Position	Auth	Act	Key Roles and Responsibilities
Administration	Captain	1	1	<ul style="list-style-type: none"> <li>Performs the chief management and administrative roles for the district.</li> <li>Works with Lieutenants to formulate key opportunities for proactive enforcement in the district, coordinating external resources in support of identifying major trends in crime and service needs.</li> <li>Work with Watch Commanders to coordinate daily needs and on call responses.</li> <li>Works an 8-hour shift Monday through Friday.</li> </ul>
	Officer (Desk)	1	1	<ul style="list-style-type: none"> <li>Receives visitors to the district and provides security to the building.</li> <li>Fulfills additional support and administrative duties as needed.</li> <li>Works an 8-hour shift Monday through Friday.</li> </ul>
	Staff Support Specialist	1	0	<ul style="list-style-type: none"> <li>Provides administrative support to the district, reporting directly to the Captain.</li> <li>Works an 8-hour shift Monday through Friday.</li> </ul>
Patrol	Lieutenant	4	3	<ul style="list-style-type: none"> <li>Manages staff in the District assigned to each shift.</li> <li>Plans and coordinates the activities in each District daily and in the long term (e.g., special projects).</li> <li>Responds to critical calls for service as needed to coordinate resources and manage the situation.</li> <li>Supervises shift Sergeants assigned to the District.</li> <li>Coordinates with the Watch Commander and with other units (especially Special Operations).</li> <li>Works a 12-hour shift three days a week.</li> </ul>
	Sergeant	8	8	<ul style="list-style-type: none"> <li>Responds to calls for service as needed to supervise Officers and coordinate resources.</li> <li>Supervises a group of Officers in the field and performs regular performance evaluations.</li> <li>Works a 12-hour shift three days a week.</li> </ul>

Function	Position	Auth	Act	Key Roles and Responsibilities
	Officer	43	41	<ul style="list-style-type: none"> <li>• Responds to calls for service as needed</li> <li>• Proactively engages in self-initiated activity when available and not handling a community-generated call or completing administrative responsibilities.</li> <li>• Is either assigned to consistently work an individual beat, or patrols the entire area covered by the supervising Sergeant.</li> <li>• Works a 12-hour shift three days a week.</li> </ul>
Community Policing	Community Policing Sergeant	1	1	<ul style="list-style-type: none"> <li>• Develops relationships with community groups and community leaders.</li> <li>• Attend Community Action Committee meetings and meetings of other community / crime watch groups.</li> <li>• Coordinates with District patrol for proactive emphases in the community and with other units in the Department (e.g., You and Family Services).</li> <li>• Coordinates service needs with other City departments and private not for profit providers.</li> <li>• Develops programs, especially for disadvantaged youth (e.g., excursions, sports).</li> </ul>
	Community Officer	3	2	<ul style="list-style-type: none"> <li>• Develops relationships with community groups and community leaders.</li> <li>• Attend Community Action Committee meetings and meetings of other community / crime watch groups.</li> </ul>
	Crime Prevention Specialist	0	0	<ul style="list-style-type: none"> <li>• Involved in programs, especially for disadvantaged youth (e.g., excursions, sports).</li> <li>• Work with schools on programs and drills.</li> <li>• Respond to "SeeClickFix" requests for service or complaints.</li> <li>• Can fill patrol field needs or be involved in special project assignments.</li> <li>• While many of the Community and Crime Prevention Officer roles are duplicated, the Crime Prevention Specialists work more with community groups and represent the Department at community meetings.</li> </ul>

#### 4. NORTH DISTRICT

The table below, while not a comprehensive listing, provides an outline that summarizes the major roles and responsibilities completed by each position within the District's organization:

Function	Position	Auth	Act	Key Roles and Responsibilities
Administration	Captain	1	1	<ul style="list-style-type: none"> <li>Performs the chief management and administrative roles for the district.</li> <li>Works with Lieutenants to formulate key opportunities for proactive enforcement in the district, coordinating external resources in support of identifying major trends in crime and service needs.</li> <li>Work with Watch Commanders to coordinate daily needs and on call responses.</li> <li>Works an 8-hour shift Monday through Friday.</li> </ul>
	Officer (Desk)	4	4	<ul style="list-style-type: none"> <li>Receives visitors to the district and provides security to the building.</li> <li>Fulfills additional support and administrative duties as needed.</li> <li>Works an 8-hour shift Monday through Friday, 24 hours a day, 7 days a week.</li> </ul>
	Staff Support Specialist	1	1	<ul style="list-style-type: none"> <li>Provides administrative support to the district, reporting directly to the Captain.</li> <li>Works an 8-hour shift Monday through Friday.</li> </ul>
Patrol	Lieutenant	4	2	<ul style="list-style-type: none"> <li>Manages staff in the District assigned to each shift.</li> <li>Plans and coordinates the activities in each District daily and in the long term (e.g., special projects).</li> <li>Responds to critical calls for service as needed to coordinate resources and manage the situation.</li> <li>Supervises shift Sergeants assigned to the District.</li> <li>Coordinates with the Watch Commander and with other units (especially Special Operations).</li> <li>Works a 12-hour shift three days a week.</li> </ul>
	Sergeant	8	8	<ul style="list-style-type: none"> <li>Responds to calls for service as needed to supervise Officers and coordinate resources.</li> <li>Supervises a group of Officers in the field and performs regular performance evaluations.</li> <li>Works a 12-hour shift three days a week.</li> </ul>



Function	Position	Auth	Act	Key Roles and Responsibilities
	Officer	66	64	<ul style="list-style-type: none"> <li>• Responds to calls for service as needed</li> <li>• Proactively engages in self-initiated activity when available and not handling a community-generated call or completing administrative responsibilities.</li> <li>• Is either assigned to consistently work an individual beat, or patrols the entire area covered by the supervising Sergeant.</li> <li>• Works a 12-hour shift three days a week.</li> </ul>
Community Policing	Community Policing Sergeant	1	1	<ul style="list-style-type: none"> <li>• Develops relationships with community groups and community leaders.</li> <li>• Attend Community Action Committee meetings and meetings of other community / crime watch groups.</li> <li>• Coordinates with District patrol for proactive emphases in the community and with other units in the Department (e.g., You and Family Services).</li> <li>• Coordinates service needs with other City departments and private not for profit providers.</li> <li>• Develops programs, especially for disadvantaged youth (e.g., excursions, sports).</li> </ul>
	Community Officers	4	2	<ul style="list-style-type: none"> <li>• Develops relationships with community groups and community leaders.</li> <li>• Attend Community Action Committee meetings and meetings of other community / crime watch groups.</li> </ul>
	Crime Prevention Specialist	1	1	<ul style="list-style-type: none"> <li>• Involved in programs, especially for disadvantaged youth (e.g., excursions, sports).</li> <li>• Work with schools on programs and drills.</li> <li>• Respond to "SeeClickFix" requests for service or complaints.</li> <li>• Can fill patrol field needs or be involved in special project assignments.</li> <li>• While many of the Community and Crime Prevention Officer roles are duplicated, the Crime Prevention Specialists work more with community groups and represent the Department at community meetings.</li> </ul>

## 5. NORTHEAST DISTRICT

The table below, while not a comprehensive listing, provides an outline that summarizes the major roles and responsibilities completed by each position within the District's organization:

Function	Position	Auth	Act	Key Roles and Responsibilities
<b>Administration</b>	Captain	1	1	<ul style="list-style-type: none"> <li>Performs the chief management and administrative roles for the district.</li> <li>Works with Lieutenants to formulate key opportunities for proactive enforcement in the district, coordinating external resources in support of identifying major trends in crime and service needs.</li> <li>Work with Watch Commanders to coordinate daily needs and on call responses.</li> <li>Works an 8-hour shift Monday through Friday.</li> </ul>
	Officer (Desk)	1	1	<ul style="list-style-type: none"> <li>Receives visitors to the district and provides security to the building.</li> <li>Fulfills additional support and administrative duties as needed.</li> <li>Works an 8-hour shift Monday through Friday.</li> </ul>
	Staff Support Specialist	1	1	<ul style="list-style-type: none"> <li>Provides administrative support to the district, reporting directly to the Captain.</li> <li>Works an 8-hour shift Monday through Friday.</li> </ul>
<b>Patrol</b>	Lieutenant	4	3	<ul style="list-style-type: none"> <li>Manages staff in the District assigned to each shift.</li> <li>Plans and coordinates the activities in each District daily and in the long term (e.g., special projects).</li> <li>Responds to critical calls for service as needed to coordinate resources and manage the situation.</li> <li>Supervises shift Sergeants assigned to the District.</li> <li>Coordinates with the Watch Commander and with other units (especially Special Operations).</li> <li>Works a 12-hour shift three days a week.</li> </ul>
	Sergeant	8	8	<ul style="list-style-type: none"> <li>Responds to calls for service as needed to supervise Officers and coordinate resources.</li> <li>Supervises a group of Officers in the field and performs regular performance evaluations.</li> <li>Works a 12-hour shift three days a week.</li> </ul>

Function	Position	Auth	Act	Key Roles and Responsibilities
	Officer	49	48	<ul style="list-style-type: none"> <li>• Responds to calls for service as needed</li> <li>• Proactively engages in self-initiated activity when available and not handling a community-generated call or completing administrative responsibilities.</li> <li>• Is either assigned to consistently work an individual beat, or patrols the entire area covered by the supervising Sergeant.</li> <li>• Works a 12-hour shift three days a week.</li> </ul>
Community Policing	Community Policing Sergeant	1	1	<ul style="list-style-type: none"> <li>• Develops relationships with community groups and community leaders.</li> <li>• Attend Community Action Committee meetings and meetings of other community / crime watch groups.</li> <li>• Coordinates with District patrol for proactive emphases in the community and with other units in the Department (e.g., You and Family Services).</li> <li>• Coordinates service needs with other City departments and private not for profit providers.</li> <li>• Develops programs, especially for disadvantaged youth (e.g., excursions, sports).</li> </ul>
	Community Officer	4	1	<ul style="list-style-type: none"> <li>• Develops relationships with community groups and community leaders.</li> <li>• Attend Community Action Committee meetings and meetings of other community / crime watch groups.</li> </ul>
	Crime Prevention Specialist	1	1	<ul style="list-style-type: none"> <li>• Involved in programs, especially for disadvantaged youth (e.g., excursions, sports).</li> <li>• Work with schools on programs and drills.</li> <li>• Respond to "SeeClickFix" requests for service or complaints.</li> <li>• Can fill patrol field needs or be involved in special project assignments.</li> <li>• While many of the Community and Crime Prevention Officer roles are duplicated, the Crime Prevention Specialists work more with community groups and represent the Department at community meetings.</li> </ul>

## 6. SOUTHWEST DISTRICT

The table below, while not a comprehensive listing, provides an outline that summarizes the major roles and responsibilities completed by each position within the District's organization:

Function	Position	Auth	Act	Key Roles and Responsibilities
Administration	Captain	1	1	<ul style="list-style-type: none"> <li>Performs the chief management and administrative roles for the district.</li> <li>Works with Lieutenants to formulate key opportunities for proactive enforcement in the district, coordinating external resources in support of identifying major trends in crime and service needs.</li> <li>Work with Watch Commanders to coordinate daily needs and on call responses.</li> <li>Works an 8-hour shift Monday through Friday.</li> </ul>
	Officer (Desk)	1	1	<ul style="list-style-type: none"> <li>Receives visitors to the district and provides security to the building.</li> <li>Fulfills additional support and administrative duties as needed.</li> <li>Works an 8-hour shift Monday through Friday.</li> </ul>
	Staff Support Specialist	1	1	<ul style="list-style-type: none"> <li>Provides administrative support to the district, reporting directly to the Captain.</li> <li>Works an 8-hour shift Monday through Friday.</li> </ul>
Patrol	Lieutenant	4	2	<ul style="list-style-type: none"> <li>Manages staff in the District assigned to each shift.</li> <li>Plans and coordinates the activities in each District daily and in the long term (e.g., special projects).</li> <li>Responds to critical calls for service as needed to coordinate resources and manage the situation.</li> <li>Supervises shift Sergeants assigned to the District.</li> <li>Coordinates with the Watch Commander and with other units (especially Special Operations).</li> <li>Works a 12-hour shift three days a week.</li> </ul>
	Sergeant	8	7	<ul style="list-style-type: none"> <li>Responds to calls for service as needed to supervise Officers and coordinate resources.</li> <li>Supervises a group of Officers in the field and performs regular performance evaluations.</li> <li>Works a 12-hour shift three days a week.</li> </ul>

Function	Position	Auth	Act	Key Roles and Responsibilities
	Officer	59	56	<ul style="list-style-type: none"> <li>• Responds to calls for service as needed</li> <li>• Proactively engages in self-initiated activity when available and not handling a community-generated call or completing administrative responsibilities.</li> <li>• Is either assigned to consistently work an individual beat, or patrols the entire area covered by the supervising Sergeant.</li> <li>• Works a 12-hour shift three days a week.</li> </ul>
Community Policing	Community Policing Sergeant	1	1	<ul style="list-style-type: none"> <li>• Develops relationships with community groups and community leaders.</li> <li>• Attend Community Action Committee meetings and meetings of other community / crime watch groups.</li> <li>• Coordinates with District patrol for proactive emphases in the community and with other units in the Department (e.g., You and Family Services).</li> <li>• Coordinates service needs with other City departments and private not for profit providers.</li> <li>• Develops programs, especially for disadvantaged youth (e.g., excursions, sports).</li> </ul>
	Community Officer	3	2	<ul style="list-style-type: none"> <li>• Develops relationships with community groups and community leaders.</li> <li>• Attend Community Action Committee meetings and meetings of other community / crime watch groups.</li> </ul>
	Crime Prevention Specialist	1	1	<ul style="list-style-type: none"> <li>• Involved in programs, especially for disadvantaged youth (e.g., excursions, sports).</li> <li>• Work with schools on programs and drills.</li> <li>• Respond to "SeeClickFix" requests for service or complaints.</li> <li>• Can fill patrol field needs or be involved in special project assignments.</li> <li>• While many of the Community and Crime Prevention Officer roles are duplicated, the Crime Prevention Specialists work more with community groups and represent the Department at community meetings.</li> </ul>

## 7. DOWNTOWN DISTRICT

The table below, while not a comprehensive listing, provides an outline that summarizes the major roles and responsibilities completed by each position within the District's organization:

Function	Position	Auth	Act	Key Roles and Responsibilities
Administration	Captain	1	1	<ul style="list-style-type: none"> <li>Performs the chief management and administrative roles for the district.</li> <li>Works with Lieutenants to formulate key opportunities for proactive enforcement in the district, coordinating external resources in support of identifying major trends in crime and service needs.</li> <li>Work with Watch Commanders to coordinate daily needs and on call responses.</li> <li>Works an 8-hour shift Monday through Friday.</li> </ul>
	Officer (Desk)	4	4	<ul style="list-style-type: none"> <li>Receives visitors to the district and provides security to the building.</li> <li>Fulfills additional support and administrative duties as needed.</li> <li>Works an 8-hour shift Monday through Friday, 24 hours a day, 7 days a week.</li> </ul>
	Staff Support Specialist	1	1	<ul style="list-style-type: none"> <li>Provides administrative support to the district, reporting directly to the Captain.</li> <li>Works an 8-hour shift Monday through Friday.</li> </ul>
Patrol	Lieutenant	4	3	<ul style="list-style-type: none"> <li>Manages staff in the District assigned to each shift.</li> <li>Plans and coordinates the activities in each District daily and in the long term (e.g., special projects).</li> <li>Responds to critical calls for service as needed to coordinate resources and manage the situation.</li> <li>Supervises shift Sergeants assigned to the District.</li> <li>Coordinates with the Watch Commander and with other units (especially Special Operations).</li> <li>Works a 12-hour shift three days a week.</li> </ul>
	Sergeant	8	8	<ul style="list-style-type: none"> <li>Responds to calls for service as needed to supervise Officers and coordinate resources.</li> <li>Supervises a group of Officers in the field and performs regular performance evaluations.</li> <li>Works a 12-hour shift three days a week.</li> </ul>

Function	Position	Auth	Act	Key Roles and Responsibilities
	Officer	46	44	<ul style="list-style-type: none"> <li>• Responds to calls for service as needed</li> <li>• Proactively engages in self-initiated activity when available and not handling a community-generated call or completing administrative responsibilities.</li> <li>• Is either assigned to consistently work an individual beat, or patrols the entire area covered by the supervising Sergeant.</li> <li>• Works a 12-hour shift three days a week.</li> </ul>
Community Policing	Community Policing Sergeant	1	1	<ul style="list-style-type: none"> <li>• Develops relationships with community groups and community leaders.</li> <li>• Attend Community Action Committee meetings and meetings of other community / crime watch groups.</li> <li>• Coordinates with District patrol for proactive emphases in the community and with other units in the Department (e.g., You and Family Services).</li> <li>• Coordinates service needs with other City departments and private not for profit providers.</li> <li>• Develops programs, especially for disadvantaged youth (e.g., excursions, sports).</li> </ul>
	Community Officer	6	2	<ul style="list-style-type: none"> <li>• Develops relationships with community groups and community leaders.</li> <li>• Attend Community Action Committee meetings and meetings of other community / crime watch groups.</li> </ul>
	Crime Prevention Specialist	1	1	<ul style="list-style-type: none"> <li>• Involved in programs, especially for disadvantaged youth (e.g., excursions, sports).</li> <li>• Work with schools on programs and drills.</li> <li>• Respond to "SeeClickFix" requests for service or complaints.</li> <li>• Can fill patrol field needs or be involved in special project assignments.</li> </ul>

## 8. SOUTHEAST DISTRICT

The table below, while not a comprehensive listing, provides an outline that summarizes the major roles and responsibilities completed by each position within the District's organization:

Function	Position	Auth	Act	Key Roles and Responsibilities
Administration	Captain	1	1	<ul style="list-style-type: none"> <li>Performs the chief management and administrative roles for the district.</li> <li>Works with Lieutenants to formulate key opportunities for proactive enforcement in the district, coordinating external resources in support of identifying major trends in crime and service needs.</li> <li>Work with Watch Commanders to coordinate daily needs and on call responses.</li> <li>Works an 8-hour shift Monday through Friday.</li> </ul>
	Officer (Desk)	1	0	<ul style="list-style-type: none"> <li>Receives visitors to the district and provides security to the building.</li> <li>Fulfills additional support and administrative duties as needed.</li> <li>Works an 8-hour shift Monday through Friday.</li> </ul>
	Staff Support Specialist	1	1	<ul style="list-style-type: none"> <li>Provides administrative support to the district, reporting directly to the Captain.</li> <li>Works an 8-hour shift Monday through Friday.</li> </ul>
Patrol	Lieutenant	4	3	<ul style="list-style-type: none"> <li>Manages staff in the District assigned to each shift.</li> <li>Plans and coordinates the activities in each District daily and in the long term (e.g., special projects).</li> <li>Responds to critical calls for service as needed to coordinate resources and manage the situation.</li> <li>Supervises shift Sergeants assigned to the District.</li> <li>Coordinates with the Watch Commander and with other units (especially Special Operations).</li> <li>Works a 12-hour shift three days a week.</li> </ul>
	Sergeant	12	12	<ul style="list-style-type: none"> <li>Responds to calls for service as needed to supervise Officers and coordinate resources.</li> <li>Supervises a group of Officers in the field and performs regular performance evaluations.</li> <li>Works a 12-hour shift three days a week.</li> </ul>



Function	Position	Auth	Act	Key Roles and Responsibilities
	Officer	72	62	<ul style="list-style-type: none"> <li>• Responds to calls for service as needed</li> <li>• Proactively engages in self-initiated activity when available and not handling a community-generated call or completing administrative responsibilities.</li> <li>• Is either assigned to consistently work an individual beat, or patrols the entire area covered by the supervising Sergeant.</li> <li>• Works a 12-hour shift three days a week.</li> </ul>
Community Policing	Community Policing Sergeant	2	1	<ul style="list-style-type: none"> <li>• Develops relationships with community groups and community leaders.</li> <li>• Attend Community Action Committee meetings and meetings of other community / crime watch groups.</li> <li>• Coordinates with District patrol for proactive emphases in the community and with other units in the Department (e.g., You and Family Services).</li> <li>• Coordinates service needs with other City departments and private not for profit providers.</li> <li>• Develops programs, especially for disadvantaged youth (e.g., excursions, sports).</li> </ul>
	Community Officer	10	4	<ul style="list-style-type: none"> <li>• Develops relationships with community groups and community leaders.</li> <li>• Attend Community Action Committee meetings and meetings of other community / crime watch groups.</li> </ul>
	Crime Prevention Specialist	1	1	<ul style="list-style-type: none"> <li>• Involved in programs, especially for disadvantaged youth (e.g., excursions, sports).</li> <li>• Work with schools on programs and drills.</li> <li>• Respond to "SeeClickFix" requests for service or complaints.</li> <li>• Can fill patrol field needs or be involved in special project assignments.</li> <li>• While many of the Community and Crime Prevention Officer roles are duplicated, the Crime Prevention Specialists work more with community groups and represent the Department at community meetings.</li> </ul>

## **APPENDIX B: BEST MANAGEMENT PRACTICES ASSESSMENT**

### **1. INTRODUCTION**

As the study is designed to provide a comprehensive analysis of operations, organization and staffing of the Field Operations Division, the project team has developed a set of performance measures, or “best management practices”, to evaluate the Department. These measures represent our approach to identifying strengths and improvement opportunities in the Field Operations Division, and are organized as follows:

- Statements of "effective practices" based on the study team's experience in evaluating operations in other agencies or “industry standards” from other research organizations.
- Identification of whether and how the RPD’s Patrol operations meet the performance targets.
- A brief description of potential alternatives to current practice.

There are no recommendations contained in the chapter. The purpose of the best practices assessment, then, is to develop an overall assessment of the RPD’s patrol and community policing operations.

### **2. SUMMARY OF FINDINGS FROM THE BEST PRACTICES ASSESSMENT**

The principal issues which the project team will focus on in the analysis of Patrol can be summarized as follows:

- Patrol staff meet most performance management / dashboard indicators. Authorized staffing and workload levels result in a very level of proactive enforcement capability at 55% and is consistently at that level in Districts. The issue for this study are the extent to which this time is utilized effectively toward the resolution of community problems.

- Patrol beats / response zone boundaries have not been changed in some time leading to great variations in the distribution of workload.
- The budgetary practice of assigning staff to Districts leads to great variations in staff availability between Districts because of position vacancies.
- While coordination between Districts and between Districts and specialized units, it does not appear to be based on a plan to address enforcement goals in the City.
- The commitment to Intelligence Led Policing hold great promise for the problem solving efforts of the Police Department in the City.
- The community policing program suffers from lack of centralized oversight and goal setting; District led efforts vary greatly in focus.
- The watch command system inn Raleigh is sound structurally but potentially varies from Captain to Captain with respect to District commanders.
- There is the potential to divert more calls for service to alternative response mechanisms.

These issues are described in the following pages of the chapter.

### 3. RESULTS OF THE BEST MANAGEMENT PRACTICES ASSESSMENT

Best Practice Target	RPD Performance Against Target	Potential Improvements
<b>I. Deployment and Scheduling</b>		
Are patrol staff deployed consistent with call for service demands by area and time of day / day of week?	Call for service data indicate great variations in call workload between beats and within districts	
Given call for service workloads and patrol staffing/deployment, does preventive field time fall within 40%-50% of available time?	Analysis of call for service workloads relative to deployments indicate that proactive time exceeds 50% of total time.	Are there redeployment opportunities at times when proactivity falls below this level to redistribute staff? Are high levels of proactive time utilized effectively?
Are proactive capabilities consistent across areas and shifts.	In spite of this finding because of differential assignments to Districts proactive capabilities fall in a narrower pattern, ranging from about 50% to 60% of total time.	
Are individual Officers consistently assigned to (for 6 -12 months) and responsible for the same geographical area?	Officers are assigned (and budgeted) by District for fixed assignments unless there is a major issue elsewhere that needs to be addressed.	

Best Practice Target	RPD Performance Against Target	Potential Improvements
Does RPD have a flexible deployment model? Is there discretion in the deployment of general patrol units according to the workload demand and officer safety considerations in the different areas of the City, and during different hours of the day?		While there are some exceptions, there is not much flexibility in assignments within patrol.
Are current shift schedules appropriate considering the factors of calls for service, deployment, etc.?	While the project team is still examining the distribution of field workloads by time and day the 12-hour shift has higher and lower periods than other shift schedules because of its length.	
Can the work schedule be modified to meet the call for service and other workload needs?		There is little flexibility in shift scheduling to accommodate call variations – there is no 'power shift' and little staggering of shifts to meet changing workload demands.
Is coordination effective between Patrol and specialty units in the delivery of services to the community?	There is some coordination of efforts between patrol and specialty units – 'special projects' and assignments which focus on traffic enforcement, drunk driving, robberies, etc. does occur.	There does not appear to be a high level of coordination between patrol and specialty units nor goals with respect to their use.

Best Practice Target	RPD Performance Against Target	Potential Improvements
<b>II. Beat Design</b>		
The beat structure ensures that entire neighborhoods and commercial areas are located within a single beat, in order to allow for patrol officers to focus more effectively on issues raised by the community and other thematic problems.	The current beat and district boundary structure often uses the middle line of major roads as dividing lines, often splitting areas between different beats and districts.	Redesign the beat structure to improve the focus and ability of patrol units to proactively target issues in specific communities.
Calls for service and handling time totals are balanced among different beats, enabling all patrol officers to proactively conduct community oriented policing.		Workload varies extensively between beats – 31 out of 63 beats (49%) have greater or less than 25% of the average number of calls for service. Redesign the beat structure would better equalize workloads among patrol officers.
The beat structure allows for backup units to be available to respond quickly when needed.	The availability for backup units to respond is excellent throughout the City, although geography is a limiting factor in some areas within the Northeast District.	
The beat structure allows for efficient transport routes within each beat in order to reduce response times to critical incidents.	Most beats contain adequate transportation routes, although the use of major streets as beat boundaries negatively impacts in-beat transportation to an extent.	

Best Practice Target	RPD Performance Against Target	Potential Improvements
The beat structure is updated every five to ten years, depending on growth, in order to better reflect the changing service needs of the community.	Existing beats have reallocated to to other districts within the last few years.	However, response zones have not been changed in many years. Update thing beat structure, including response zones, should be accomplished every five to ten years.
<b>III. Intelligence Led Policing</b>		
Detailed crime analysis information and tools are available to patrol officers in through their mobile data terminals.	Dashboard analytics will soon be available to patrol officers in their vehicles.	Fully implement the dashboard program and train all personnel up to the lieutenant level in using technology.
Crime analyst resources are organized centrally at a single location.	Crime analysts are located centrally, and include a mix of both sworn and civilian personnel.	
Are proactive enforcement efforts driven by the use of available crime or other crime related data?	The Intelligence Center assists in targeting proactive activities in Districts.	Proactive enforcement is still an evolving concept in Raleigh and efforts are not completely coordinated yet between field units. Community policing units, specialty units and watch command.
Is technology being utilized effectively in field patrol operations? In-car reporting? Access to data in the field?	Units have access to crime, report and intelligence information in the units. Field reporting capability is in place.	

Best Practice Target	RPD Performance Against Target	Potential Improvements
<b>IV. Community Policing</b>		
Are Community Policing Officers' roles are clearly defined and are they held accountable for their time?		Community Policing Officers roles vary greatly by District ranging from a heavy involvement in programs, to community meetings and group support, to enforcement. There is no clear policy, model or goal for the use of community policing resources in the City.
Is the Community Policing program regularly evaluated overall and in each District based on their efficiency and service delivery effectiveness?		There is not central responsibility for community policing unit oversight and the oversight in the Districts varies greatly.
<b>V. Management and Supervision</b>		
Do field units operate with a proper mix of supervisory and line positions (with a ratio of 1:6 to 1:9)?	Using authorized staffing levels, field supervisory ratio is 1:6.4 A Lieutenant is also on duty each shift in each District.	
By policy and practices watch commanders coordinate services across Districts and shifts?	The watch command system in Raleigh differentiates the roles and responsibilities of District Commanders (Captains) from Watch Commanders (also Captains). The former is the administrative commander of a district; the latter is the shift and resource manager for the City overall.	In practice, interviews suggest that there is variation in the roles that individuals play in managing field operations.



Best Practice Target	RPD Performance Against Target	Potential Improvements
Do supervisors manage field units' time when they are not committed to handling calls for service?		Apart from TopCops (see below) and the Intelligence Center (see above) there is no comprehensive or consistent targeting or tracking of community issues at the field supervisor level.
Is the utilization of available proactive time tracked, managed and evaluated?	TopCops is an approach to track and evaluate utilization for purposes of performance evaluations.	
Do supervisors routinely respond to calls for service review field performance and written work of Patrol Officers?	Both Sergeants and Lieutenants respond to calls for service for purposes of managing the scene and evaluating officer performance.	Watch commanders respond too with potential issues relating to roles at the scene, consistency of roles and impacts on other operational considerations.
Is there an established policy for prioritizing calls and is it consistently used to dispatch Officers to incidents?	There is a call prioritization policy and, in practice, reported calls by priority fall within an expected distribution.	
Are there alternative call handling practices in place to relieve sworn field units from handling low priority calls for service? Is the level of diversion (including all approaches) in the 10% - 20% range?	A telephone reporting unit (TRU) exists to handle lower priority calls for service.	The TRU is variably staffed through light duty officers and do not meet the targeted diversion rate.

Best Practice Target	RPD Performance Against Target	Potential Improvements
Do call performance indicators result in aggregate performance at expected levels of:		
<ul style="list-style-type: none"><li>• Handling time of 30 – 40 minutes.</li><li>• Back up rate of 1.4 – 1.6 units per CFS.</li><li>• Proactive time between 40% – 50%.</li><li>• Officer availability at 80%.</li></ul>	<ul style="list-style-type: none"><li>• Handling time is 41.4 minutes.</li><li>• Backup rate is 0.74 units per call.</li><li>• Proactive time is 57% overall.</li><li>• Officer net availability is 72%.</li></ul>	

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## APPENDIX C: RESULTS OF THE EMPLOYEE SURVEY

### 1. INTRODUCTION

As part of our study for the Raleigh Police Department, our project team conducted an anonymous survey of Field Operations Division employees using the online service SurveyMonkey. Although participation was voluntary, a high rate of responses was achieved, totaling 317 unique individuals.

The table below provides a breakdown of the number of responses by district, and their average length of employment within the Raleigh Police Department.

**Breakdown of Respondents by District**

District	# of Resp.	% of Total	Avg. Years
Downtown District	51	16%	9.0
North District	75	24%	8.2
Northeast District	58	18%	8.4
Northwest District	43	14%	9.6
Southeast District	51	16%	9.1
Southwest District	34	11%	9.4
Other/Not Applicable	5	2%	19.0
<b>Total</b>	<b>317</b>	<b>100%</b>	<b>9.0</b>

The North District has the highest response rate, at 75 total respondents. This is expected, however, as the district has the highest number of staff currently allocated.

The following table displays the breakdown of respondents by rank and assignment on an overall basis:

**Breakdown of Respondents by Rank/Assignment**

Rank/Classification	# of Resp.	% of Total	Avg. Years
Captain or Major	9	3%	23.4
Lieutenant	15	5%	21.7
Sergeant (Patrol)	38	12%	16.9
Sergeant (Community Policing)	4	1%	16.8
Officer (Patrol)	233	74%	5.8
Officer (Community Policing)	11	3%	11.3
Other	7	2%	19.0
<b>Total</b>	<b>317</b>	<b>100%</b>	<b>9.0</b>

The lowest response rate appears to be among officers assigned to community policing, with only 11 in total completing the survey. The positions of those selecting who have selected “Other” is unclear, although it is likely that many of these are desk officers, given that the survey invitations were generated from a list of all sworn employees within the Field Operations Division.

## **2. MULTIPLE CHOICE QUESTIONS**

The multiple choice questions asked to respondents each presented a statement, where respondents were able to choose one of five options: Strongly Disagree, Disagree, Agree, Strongly Agree, or No Response. In the charts contained in this section, response tallies are summarized under the following abbreviations:

- **SD** corresponds to “Strongly Disagree”
- **D** signifies “Disagree”
- **A** signifies “Agree”
- **SA** corresponds to “Strongly Agree”
- **#** indicates the total number of responses to that question (does not count “No Response” selections)

## (1) Beat Structure

The following seven questions were asked to respondents regarding the current beat structure, although several questions were asked only to patrol officers:

Statement	SD	D	A	SA	#
My current beat has effective transportation routes that usually make it easy to get from one end to another when I need to.	0%	7%	60%	32%	225
The boundaries of my beat are logical and make sense to me.	3%	13%	54%	31%	224
If a low-priority call for service occurs in my beat while I am on another assignment, a nearby officer from a different beat will usually handle the call.	11%	19%	51%	19%	222
I am assigned to cover the same beat most of the time.	3%	6%	18%	73%	223
Some beats have significantly more workload than others.	0%	0%	28%	71%	313
The current beat structure is at the core of our strategy for providing patrol services to the community.	9%	27%	56%	8%	274
The current beat structure is highly effective and should not be substantially changed.	21%	40%	34%	5%	294

- Virtually every officer feels that their beat has effective transportation routes. Given that these routes serve as the dividing lines between many of the beats, this was largely expected.
- A significant majority of officers – approximately 61% – do not agree that the beat structure is highly effective, indicating low levels of opposition toward major changes being made, as well.

Results show that the beat system is an important part of the department's patrol services. While over a third of respondents (36%) do not agree that it is "at the core of [the division's] strategy," the beat structure's importance is evidenced through the responses to several other questions. 91% indicate that they are assigned to cover the same beat regularly, and nearly a third of officers indicated that another officer will not cover a call in their beat if they are unavailable at the time. While not a 'best practice'

necessarily, it demonstrates that a sense of geographical responsibility exists among officers in the department.

## (2) Shift Schedule

Two questions were asked to respondents that focused on the shift schedule used by the department:

Statement	SD	D	A	SA	#
I am content with the current 12-hour shift schedule, and would not prefer switching to a different schedule.	34%	25%	23%	17%	296
The current shift schedule is optimal for patrol officer performance.	40%	32%	20%	8%	300

- Only about a quarter of respondents view the 12-hour shift as being optimal for patrol officer performance.
- 40%, however, are largely content and would not prefer switching to a different shift schedule.

It is interesting that large percentages of those with negative views on either statement selected “Strongly Disagree,” indicates significant opposition. This was widely expressed in the open-ended responses section, which contained a significant number of comments presenting arguments against the 12-hour shift schedule. Many of these were nuanced, and did not reject the 12-hour shift schedule as a whole, but instead highlighted problems with how it is being implemented in Raleigh.

Foremost among these concerns is the effect of off-duty court time on officers’ wellbeing and performance. If an officer is required to appear in court every day on a week that they are working the night shift, their ability to sleep effectively severely compromised. Another common criticism of the current schedule is the effects of rotation. By rotating every three weeks, the negative effects of transitioning between

shifts are experienced very often, as opposed to a 12-hour shift schedule that used fixed team assignments that are either bid on or rotated on a much less frequent basis

### (3) Community Policing

The table below displays results for the two questions pertaining to community policing teams:

Statement	SD	D	A	SA	#
Community Policing teams are an important tool for reducing crime and disorder.	18%	24%	38%	20%	292
Community Policing units provide a valuable service to our community.	13%	22%	46%	18%	280

Although strong majorities either agree or disagree with both of the statements regarding the community policing teams, given how general the wording was, the results are somewhat surprising. It can loosely be inferred that to disagree with the statements (about 42% and 35%, respectively) equates to saying that community policing does *not* provide a valuable service, and is *not* an important tool.

This is particularly interesting because the community policing teams are an existing function – representing large numbers of staff. All except one of those selecting either disagree or strongly disagree in both questions were assigned to patrol or administrative role, indicating either a lack of knowledge about what community policing teams do, or a lack of confidence in the effects that their services provide.

### (4) Staffing, Equipment, and Operations

The remaining multiple-choice questions covered a variety of topics, including how patrol officers are supervised, equipment, and other operations-based topics:

Statement	SD	D	A	SA	#
Patrol staffing resources are adequate to meet the current law enforcement needs of the city.	42%	35%	21%	3%	312
Patrol sergeants play a role in balancing the reports and arrests workload among officers.	18%	37%	37%	8%	298
Patrol officers help each other out on busy days to help share the workload.	2%	15%	58%	25%	307
The amount of time officers spend in court does not interfere with the effectiveness of patrol.	66%	22%	11%	1%	304
Our patrol units have adequate technology and information systems perform effectively in the field.	3%	7%	54%	36%	311

- Technology is highly praised by respondents, a finding that confirmed through our interviews and ride-alongs within the division.
- 88% of respondents express a negative view of court time, indicating that it interferes with the effectiveness of patrol.

Concerns over the issues associated with court time were also the most commonly raised sentiments in the open-ended responses section. Frequently, these tied to attitudes toward the current 12-hour shift schedule, as examined in the second section.

### 3. RANKING OF BEAT DESIGN FACTORS

Respondents were presented with seven factors that may be considered in designing a beat structure. Using a pull-down menu, they were then asked to rank their importance and utility in the process, from most important (1<sup>st</sup>), to least important (7<sup>th</sup>).

The results of this question are displayed in the table below on an overall basis:



Beat Design Factor	Rank
Availability of backup units	1st
Equalizing officer workload	2nd
Specific crime patterns (e.g., drawing boundaries around an area with drug/vice issues)	3rd
Maximizing proactive and community policing efforts in the areas that have the most activity	4th
Major streets and other logical geographic dividers	5th
Maintaining major neighborhoods and/or districts within one beat	6th
Ease of transportation within the beat	7th

Availability of backup units, equalizing officers workload, and specific crime patterns were the three most important factors in designing a beat structure according to respondents. While safety and staffing concerns occupy the top two, it is interesting that one of the categories focusing on targeting local issues was ranked so highly. This underscores the importance of the beat system to the division's operations and proactive capabilities of the division, as it is seen as a tool for addressing issues at the local level.

#### 4. RATINGS

Respondents were also asked to rate the department's services and performances according to one of four categories: Poor, Fair, Good, and Very Good. The following table contains the overall response totals for each of these categories:

Category	Poor	Fair	Good	V. Good	#
Response times to calls for service	5%	19%	42%	35%	309
Availability of backup for officer safety	7%	23%	39%	31%	308
District capabilities for selective enforcement	22%	32%	33%	13%	282
Amount of proactive time in the field	20%	41%	30%	8%	295
Availability of training	9%	17%	36%	37%	307

Category	Poor	Fair	Good	V. Good	#
Crime analysis support	7%	22%	44%	27%	297
Involvement in community policing projects	24%	39%	31%	7%	253

- Most officers do not rate the amount of proactive time in the field as being satisfactory, with about 20% of respondents rating it as “poor”.
- Only 7% of respondents view current levels of involvement in community policing projects as being “Very Good”, with almost a quarter of them viewing it as “Poor”.
- Crime analysis support is rated highly – in total, 71% of respondents selected either “Good” or “Very Good”.

Overall, the distribution of ratings was largely mixed. Categories pertaining to individual or group performance, such as response times to calls for service or the availability of backup for officer safety, received mostly positive responses, while those that focused on general staffing or management concerns were received much more negatively.

## APPENDIX D: RESULTS OF THE COMMUNITY SURVEY

### 1. INTRODUCTION

Respondents were asked to identify the area of Raleigh in which they live, as well as the option to indicate that they do not live in the city. If this option was selected, they were then asked for the area of Raleigh in which they work. However, all of the survey respondents claimed to be residents of the city.

Respondents were then asked to identify whether or not they were a member of a Citizen Advisory Council or any other community group, as well as if they had interacted with RPD patrol officers within the last year:

Statement	Yes	No	#
Are you a member of a Citizen Advisory Council?	38%	62%	50
Are you a member of any other type of neighborhood or community watch group?	55%	45%	51
In the past year have you had any contact with Raleigh Police Department patrol officers (only patrol contacts, please)?	86%	14%	49

While a majority of respondents reported that they are not members of a Citizen Advisory Council, a sizable share of them – about 38% – indicated that they were. As a result, it is reasonable to assume that the citizens electing to complete the survey are particularly active in their communities in comparison to the average Raleigh resident. This is relevant to the interpretation of the survey results, as actively engaged citizens are more likely to be aware of crimes in their community than most people.

## 2. MULTIPLE-CHOICE QUESTIONS

As in the employee survey, respondents are presented with statements, choosing one of five options for each: Strongly Disagree, Disagree, Agree, Strongly Disagree, or No Response. Response tallies have been summarized with the following abbreviations:

- **SD** corresponds to “Strongly Disagree”
- **D** signifies “Disagree”
- **A** signifies “Agree”
- **SA** corresponds to “Strongly Agree”
- **#** indicates the total number of responses to that question (does not count “No Response” selections)

Statement	SD	D	A	SA	#
I feel safe in Raleigh.	0%	4%	67%	29%	49
The Police Department provides a high level of law enforcement service to Raleigh.	2%	8%	53%	37%	49
Raleigh Police Officers staff are professional in my contacts with them.	0%	2%	31%	67%	48
The Police Department staff are responsive to our law enforcement needs.	2%	15%	38%	45%	47
The Department does a good job anticipating service needs.	0%	15%	41%	44%	39
Officers are prompt in responding to problems raised by the community.	2%	23%	38%	36%	47
I see adequate police patrols in the area where I live or work.	6%	23%	40%	30%	47
It is important to me to regularly see an officer in my area.	0%	4%	29%	67%	48

- Almost all respondents indicated that they feel safe in the city, and that the Raleigh Police Department provides a high level of service overall.

- Strong majorities also expressed that they see adequate patrols in their areas, that officers are prompt in responding to problems raised in communities, and that the department is effective in anticipating their service needs.
- None of the statements provided received a large number of respondents selection either “Agree” or “Strongly Disagree”.

The written comments in the open-ended responses section echoed these observations, with almost every response indicating a strongly positive attitude toward the department and its services.