

Report on the Police Department Operational and Staffing Study

LEWISVILLE, TEXAS

FINAL REPORT



November 8, 2019

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1 Introduction and Executive Summary

The Matrix Consulting Group was retained by the City of Lewisville to conduct an operational and staffing assessment of the Police Department to assess the effectiveness, quality, efficiency and staffing of the police department. The project team also developed growth projection models to assist the city in forecasting the need for additional department staffing. The report, which follows, presents the results of the study.

In reaching the concluding points of the study, the project team has assembled this final report which summarizes our findings, conclusions and recommendations where appropriate. The purpose of the study is to identify current resource needs and to plan future resource needs of the department as growth continues in the City and with the pending annexation of the Castle Hills development. This report relies upon the results of the Patrol work and analysis conducted by the Matrix Consulting Group project team working with staff in the LPD. The document is organized by functional area and contains analysis of each as follows:

- **Workload and ability to meet service objectives:** Primary activities, including analysis of workload data, including comparison of the unit's ability to meet objectives based on available resources.
 - In patrol, this includes a comprehensive analysis of CAD (computer-aided dispatch) data to determine the ability of patrol to be proactive given current resource constraints.
 - In investigations, this includes an analysis of case management and staffing compared to caseload targets.
 - For other functions, other workload and service level factors were evaluated appropriate to each.
- **Findings, conclusions and recommendations:** The findings and conclusions that have been made as a result of the project team's analysis. Examples of the types of issues and questions asked for individual functional areas of the agency include:
 - Are targeted service levels inadequate?
 - Are sufficient staff and other resources allocated to the function?
 - Are staff deployed and / or assigned effectively?
 - Are the right types of staff assigned to the unit?

The project team utilized a number of approaches in order to understand the service environment and issues relevant to the study, including the following:

- **On-site interviews** with LPD leadership, managers, unit supervisors and many staff.
- **Employee survey** to solicit feedback from all employees in the organization.
- **Data collection** across every service area in order to enable extensive and objective analysis.
- **Iterative and interactive process** in which the consultants first understood the current organization and service delivery system, identified issues and current staffing needs. Throughout the process, the consultants reviewed findings with the LPD.

To determine current and future staffing and facility needs, the project team used current service levels, authorized staffing or recommended staffing levels identified after completing a thorough review of current operations. Using this data and multi-year building permit information, census, and planned development, the project team then established a growth model to predict population growth and workload models. Current calls for service per capita was then applied to predicted population increases to determine future calls for service. Calls for service levels have predictive impacts to support services, like detective caseloads, and property and evidence intake which the project used to predict future staffing and service needs.

The final report represents the culmination of this process, presenting the results of our analysis, including specific recommendations for the LPD on staffing, deployment, and other relevant issues.

The following table provides a comprehensive list of every recommendation made in the report:

Summary of Recommendations

Chief's Office	
Support	<ul style="list-style-type: none"> • Maintain the Senior Administrative Assistant and two Administrative Assistant positions in the Chief's Office.
Public Information	<ul style="list-style-type: none"> • Develop and implement a strategic communication plan for the LPD.
Internal Affairs	<ul style="list-style-type: none"> • Maintain the current staffing of one officer in Internal Affairs.

Support Bureau	
Administration	<ul style="list-style-type: none"> Consider moving oversight of the Jail and Property and Evidence functions to under a non-sworn Manager. Maintain a Captain position to oversee the Warrants and DA Liaison. Maintain the current approach of one full time Background Investigator that is supplemented by part time investigators during peak workload periods.
Jail	<ul style="list-style-type: none"> Maintain the current approach to scheduling staff in the jail. Maintain the current allocation of 21 staff for the jail.
Property & Evidence	<ul style="list-style-type: none"> One Supervisor and five (5) Technicians are recommended for Property and Evidence. This is an increase in one authorized Technician position.
DA Liaison	<ul style="list-style-type: none"> Create one additional Clerk position under the DA Liaison to assist with case packet development. NIBRS coding functions should transition from the Data / Crime Analyst to the new Case Clerk position.
Warrants	<ul style="list-style-type: none"> Transition the completion of administrative tasks currently conducted by Warrant Officers for the Municipal Court to court staff. The Municipal Court should be tasked with the development and administration of payment plans for individuals with outstanding warrants versus officers. Create the position of Warrant Technician in the FY 2021 budget to complete administrative tasks and proactively conduct internet / social media research for individuals with outstanding warrants.
Training	<ul style="list-style-type: none"> Create an administrative support position in Training.
K9	<ul style="list-style-type: none"> The K9 teams should be assigned to patrol with specific sergeants that match the majority of their shifts.
SWAT/Hostage Negotiations	<ul style="list-style-type: none"> Maintain current staffing of SWAT/HNT as a collateral duty. Ensure the SWAT/HNT teams meet minimum industry standards for training. Consider renaming the HNT to better reflect their entire mission.
Personnel	<ul style="list-style-type: none"> Maintain current staffing of 1 officer for Personnel services Limit the number of additional tasks and collateral duties for the personnel officer.

Investigations	
Administration	<ul style="list-style-type: none"> • Maintain current staffing of 1 Captain. • Maintain current staffing of 1 Administrative Assistant.
Property Crimes	<ul style="list-style-type: none"> • Increase current staffing of property crimes detectives by 3 detectives for a total of 12 property crimes detectives. • Add an additional sergeant to the property crimes unit for a total of 2 sergeants. • Maintain current staffing of 1 intern for video recovery and other tasks.
CAPERS	<ul style="list-style-type: none"> • Increase current staffing of person crimes detectives by 7 detectives for a total of 13, person crimes detectives. • Add an additional sergeant to the person crimes unit for a total of 2 sergeants. • Increase staffing by 1 for a total of 2 crime scene technicians. • The Crime Scene Technicians should be on call for serious felony crime call outs. • Remove the caseload from the Crime Victim Advocate and re-assign to person crimes detectives. • Long term, convert the crime victim advocate position a civilian position.
Street Crimes	<ul style="list-style-type: none"> • Maintain current authorized staffing of 1 sergeant, 6 detectives and 2 officers for a total of 9 sworn personnel.
Narcotics	<ul style="list-style-type: none"> • Maintain current staffing of 5 detectives and 1 sergeant (1 detached to DEA).
Crime Analysis	<ul style="list-style-type: none"> • Maintain current staffing of 1 Crime Analyst. • Move the task of NBIRS coding to the new recommended case clerk position in DA Liaison.
Operations Support	
Administration	<ul style="list-style-type: none"> • Maintain current staffing of 1 Captain.
School Resource	<ul style="list-style-type: none"> • Maintain current planned staffing of 9 SROs. • Add one additional sergeant in resources for a total of two (1 dedicated to NRO/ Parking and 1 dedicated to SROs). • Split the roles of sergeants with two being assigned to the SRO program and one to oversee the NRO and Parking Enforcement programs.
Neighborhood Resource	<ul style="list-style-type: none"> • Add one Neighborhood Resource Officer for a total of 5 to cover the Castle Hills area. • Add one Parking Enforcement officer (non-sworn) for a total of 2.

Traffic	<ul style="list-style-type: none"> • Maintain the current staffing of 10 officers assigned to Traffic. • Add one sergeant for a total of 2.
Fleet	<ul style="list-style-type: none"> • Maintain current staffing of two fleet maintenance officers.
Patrol	
Patrol	<ul style="list-style-type: none"> • Increase the number of patrol officer positions allocated to patrol by 3 positions, for a total of 78 authorized, in order to meet current service needs. • After consulting with patrol supervisors and officers, implement an optimized version of the 12-hour shift schedule. • By 2024, add another 7 authorized officer positions to Patrol in order to provide the same level of service given projected increase to service needs, for a total of 85 authorized officer positions in patrol. • By 2029, add another 7 authorized officer positions to Patrol in order to provide the same level of service given projected increase to service needs, for a total of 92 authorized officer positions in patrol.
Technology Services	
Communications	<ul style="list-style-type: none"> • A total of 25 Dispatcher I / II positions are required, which is an increase in two authorized Dispatcher I positions. • Eliminate the two vacant call-taker positions. • Maintain the five authorized Supervisor positions in Communications.
Records	<ul style="list-style-type: none"> • Maintain the Supervisor, 5.5 Clerks, and the Open Records Technician (1), currently authorized for Records. • After successful implementation of the new Records Management System, roles and responsibilities of each staff member should be evaluated to ensure that staff are effectively utilized. Reassign duties if necessary.

The following table summarizes the staffing needs for the LPD:

Summary of Staffing Needs

Unit	2019 Authorized	2019 Recommended	2024	2029
Administration	6	6	6	6
Support Bureau	39	43	44	45
Investigations	38	51	52	54
Operations Support	29	33	33	33
Patrol	92	95	103	111
Technology Services	38.5	38.5	40.5	42.5
Grand Total	242.5	266.5	278.5	291.5

Overall, a total of 266.5 positions are recommended in 2019 compared to what is currently authorized. Furthermore, a total of 291.5 staff are recommended in 2029, which is an increase in 49 staff from current authorized levels.

Critically, in patrol, because of growth and annexations, this includes the following additional positions:

- By 2024, add another 7 authorized officer positions to Patrol in order to provide the same level of service given projected increase to service needs, for a total of 85 authorized officer positions in patrol.
- By 2029, add another 7 authorized officer positions to Patrol in order to provide the same level of service given projected increase to service needs, for a total of 92 authorized officer positions in patrol.
- Due to the anticipated possible annexation of the Castle Hills development and the inequity in CFS, the new zone alignment should be implemented.
- By 2024, increase the number of sergeant positions authorized in Patrol by 1 in order to maintain current supervisory spans of control.
- By 2029, increase the number of sergeant positions authorized in Patrol by 1 in order to maintain current supervisory spans of control

The body of the report provides greater detail on these recommendations.

2. Analysis of the Chief's Office

The Chief's Office includes the administrative function of the Police Department, including the Chief, a Senior Administrative Assistant and two Administrative Assistants, Internal Affairs Officer and the Public Information Coordinator. Additionally, the two Assistant Chiefs and Technology Service Manager report directly to the Chief. This section of the report will focus on activities within the Chief's Office. The two Assistant Chiefs and Technology Service Manager will be discussed in their respective sections.

1. Public Information Coordinator

At the start of 2019, the LPD implemented the newly created position of Public Information Coordinator (PIC). Prior to this new position, the dissemination of press releases, social media posts, and other official department documentation was a joint effort between various individuals within the organization. At the time of this study, the LPD was in the process of implementing this new position and defining the role within the organization and how other staff would support the PIC and fill-in during absences.

In order to have a successful public information and communication plan for the Police Department a strategic communication plan should be developed. A strategic communication plan should include at a minimum the following elements:

- Mission and vision of public outreach and engagement.
- Define benchmark for various outreach efforts (e.g. social media posts, newsletters, informational videos, etc.).
- Define key messages that each medium is intended to deliver.
- Identify the role of each staff member involved in delivering information to public media outlets (e.g. Patrol Sergeant versus Chief's roles).
- Develop timeframes and performance metrics to provide information to public / media.
- Define what is released through the City's Public Information Office versus the Police Department.
- Define and develop partnerships with other City departments, local media, and community partners.
- Develop an implementation plan.

Developing and implementing a strategic communication plan for the Police Department will enhance the quality of services provided, explicitly outline individual responsibilities within the department, and provide a consistent message medium. It is recommended to develop a strategic communication plan for the Police Department. The Public Information Coordinator should lead this effort with support from command staff.

Recommendation: Develop and implement a strategic communication plan for the LPD.

2. Administrative Support Staff

A total of three positions are dedicated to providing Administrative Support functions to the LPD. Support staff include a Senior Administrative Assistant and two Administrative Assistant positions.

The Senior Administrative Assistant primarily serves as the executive assistant to the Chief and Assistant Chiefs. However, this position does provide support and backup to the other two Administrative Assistant positions.

The two Administrative Assistants provide a wide variety of administrative and support functions to command staff and the entire LPD. One position primarily focuses on serving as the human resources liaison for the LPD, including maintaining employee records, onboarding new hires, and ensuring supervisors complete employee evaluations in a timely manner. While the other position is tasked with processing accounts payables/receivables, purchasing card transactions, and processing travel expenses. This position also assists with annual budget preparation and monitoring of expenses compared to budgeted and remaining balances. Both positions are responsible for maintaining current policy and procedures in the Power DMS platform.

The current allocation of duties between the three administrative staff is typical with other law enforcement agencies, especially for similar sized agencies. It is common to have human resources and financial tasks separated between staff to allow them greater focus on specific and similar tasks. Based on the current allocation of primary duties, the project team recommends no changes to the number of support staff in the Chief's Office.

Recommendation: Maintain the Senior Administrative Assistant and two Administrative Assistant positions in the Chief's Office.

3. Internal Affairs

The Internal Affairs Officer is a direct report to the Chief of Police and is responsible for all internal investigations. The Officer is responsible for all data entry into IAPro and Blue team (when launched) and conducts audits of property and evidence, Narcotic Investigative Funds and Department Ammunition. The following table illustrate some of the workload of the Internal Affairs officer:

Task	Number per Year
Internal Investigations	15
Quarterly Property Room Audit (10 to 20 random Item Check)	4
Property Room Audit (50 items and 100% of guns, money and drugs)	1
Ammunition Audit	1
Narcotic investigative fund audit	4

The Officer has a collateral duty as a firearms instructor. The department has launched the “Blue Team” component of IAPro for early warning and tracking of other officer activities such as use of force and vehicle crashes. All tasks in Internal Affairs are current and are performed on schedule.

The internal affairs officer serves an important role within the organization, the most important being audits and internal investigations. The officer averages just over one internal investigation per month, which is lower than most other agencies, however they have additional duties including audits which can be time consuming. With the launch of the blue team early warning system there will be additional tasks. With current tasks and the launch of blue team, the position will be at or near capacity for additional tasks.

Recommendation: Maintain the current staffing of one officer in Internal Affairs.

3. Analysis of the Support Bureau

The Support Bureau is comprised of three functional units: Support Admin, Investigations, and Support Operations. The Support Admin unit includes the City's Jail (24 – 48-hour lockup), Property and Evidence, Warrants, Court Liaison, and Training/K9/SWAT operations. The Investigation Unit includes the proactive and reactive investigative teams for the department. Finally, Support Operations includes the School and Neighborhood Resource Teams, the Traffic Unit, and Fleet operations. The following table outlines the staffing levels of the Support Bureau.

Unit/Division	Curr.	Auth.	Position
Administration	1	1	Assistant Chief
	1	1	Captain
	1	1	Background Investigator
Jail	6	6	Supervisor
	2	5	Detention Officer II
	5	10	Detention Officer
Property & Evidence	1	1	Supervisor
	4	4	Technician
DA Liaison	1	1	Sergeant
	2	2	Clerk
Warrants	3	3	Officer
Training	1	1	Sergeant
	1	1	Officer
K9	2	2	Officer
SWAT (Collateral Duty)	1	1	Administrative Captain
	1	1	Sergeant (Commander)
	18	18	Officer (Operators)
	6	6	Officer (Support)
Hostage Negotiations Team (Collateral Duty)	1	1	Sergeant
	5	5	Officer

1. Administration

The administration component of the Support Bureau includes an Assistant Chief, Captain, and Background Investigator. This organizational structure is similar to that of Patrol, which is directly overseen by an Assistant Chief, with support from a Captain. The current organizational structure is similar to those in other law enforcement agencies of similar size and command structure. The Captain has a total of eight direct reports, which is appropriate based on the type of operations they oversee.

The Captain oversees multiple operational areas comprised of both sworn and non-sworn staff. From a supervisor perspective, one industry best practice focuses on having sworn personnel supervising only sworn personnel and non-sworn supervisors over non-sworn teams. For the most part, the LPD follows this principal, except in the case of the Captain over the Jail and Property and Evidence. Ideally, a non-sworn manager would oversee the operations of the Jail and Property and Evidence.

Due to pending retirements over the next few years. The executive team is considering possible reorganization scenarios. As part of this scenario development, it is recommended to move oversight of Jail and Property and Evidence under a non-sworn manager. Currently, the only operational unit that is fully comprised of non-sworn staff is Technology Services (Dispatch and Records). Organizing all non-sworn staff under the same manager is recommended during the next reorganization of the LPD.

In the unlikely event that the jail staff were to grow in the future, then there may be a need to have a Supervisor specifically over the jail, as a jail typically contributes a significant portion of the workload for supervisory and administrative staff. However, the current organizational reporting structure of the jail is adequate at this time.

One full time Background Investigator is utilized by the LPD. This staff member is assisted by part time staff when workload dictates this. As the LPD looks to fill current vacancies and hire additional staff to fill newly recommended positions, the flexibility of utilizing part time staff is important. This approach is effective as the workload associated with background investigation of new staff is time extensive but is generally sporadic throughout the year. The LPD should maintain its current approach to utilizing part time staff to assist with background investigations.

Recommendations:

Consider moving oversight of the Jail and Property and Evidence functions to under a non-sworn Manager.

Maintain a Captain position to oversee the Warrants and DA Liaison.

Maintain the current approach of one full time Background Investigator that is supplemented by part time investigators during peak workload periods.

2. Analysis of the Jail

The Jail facility has a rated capacity of 50 inmate beds. The jail is classified as a podular remote supervision facility. Podular remote supervision means the cells in housing are clustered around a dayroom or common area. The duty station is outside the housing unit and is enclosed with security glass windows that allow security staff to observe the inmates. The term “remote” refers to the staff’s separation from the inmates by the glass barrier. In this type of jail, staff can observe the inmates while they are in the dayroom and interact with them on a limited basis, usually through intercoms. Security staff interaction with inmates, however, is still limited, and observation is usually limited to dayroom activities. Also, staff are not able to hear inmates easily and may not be aware of problems in the unit until they become escalated. This design and operational philosophy are consistent with holding centers and smaller jails. For inmates who need constant supervision or higher level of supervision, they are typically placed in the holding cells adjacent to intake and in direct view of the booking area.

The jail primarily serves as a temporary holding facility for individuals arrested by the Lewisville Police Department. The arrestee is processed and booked at this facility before they are transported to the Denton County Jail. Patrol officers transport new arrestees to the Denton County Jail each morning.

The Jail has a relatively small average daily population (ADP) compared to its rated capacity (50 beds). The following table shows the ADP and bookings in 2018.

Jail ADP and Bookings by Month

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Bookings	546	533	748	594	648	627	586	619	639	496	437	599
ADP	11	11	14	12	12	13	11	13	13	10	9	12

(1) Staff Deployment and Scheduling

The Jail is authorized for six Supervisors, five Detention Officer II, and 10 Detention Officer I positions. However, at the time of this study, there were a total of five vacancies for the Detention Officer I and II positions. Staff work an 8.5-hour shift and are assigned to one of three shifts. Staff work a five day on and two day off schedule. “A Shift” is from 2230 to 0700 hours, “B Shift” is from 0630 to 1500 hours, and “C Shift” is from 1430 to 2300 hours. A total of two Supervisors are assigned to each shift. Overall, each shift is assigned a total of seven positions.

Minimum staffing levels for the shift is two staff members, including a Supervisor. Preferred staffing level is four staff per shift. However, when staffing vacancies exist, B and C shifts are staffed slightly heavier to account for increased paperwork and public window duties.

Jail staff conduct various duties throughout the facility, including some that are not traditional jail duties. These duties include staffing the public counter 24 hours per day. Duties at the public counter include fingerprinting, processing payments, and taking a variety of incident reports for the public. Staff at the public counter do not have the ability to supervise inmates or operations in the jail; they are only able to provide backup assistance as needed. Additionally, fingerprinting requires the officer to go outside the secure perimeter of the jail and may impact jail operations. However, in the event of minimum staffing, the detention officer would be unable to perform fingerprinting duties.

The public counter provides operational challenges for the jail, especially related to fingerprinting and completing incident reports for the public. Fingerprinting functions for the public are conducted during set times and adequate staffing levels can be achieved by scheduling or the use of overtime. However, the completion of incident reports often occurs sporadically throughout the day/week and the time for completion may vary from a few minutes to an hour. This can impact operations within the jail, especially if a full staffing contingent is not working at that time; e.g. if an inmate requires additional supervision (e.g. suicidal inmate) or there is an influx of intakes or releases. Subsequently, if the officer is required to perform duties in the jail, then the level of customer service provided to the public may suffer. The impact on staffing of the public counter is noticeable especially when there are vacancies within the jail, which is currently the case.

Ideally, jail staff would not complete front counter duties. However, based on the current inmate level in the jail and the number of daily bookings and the current staff deployment (if fully staffed) then there are an adequate number of positions authorized to complete these duties. In the event that the jail population was to increase significantly then an alternative staffing approach would need to be considered.

Overall, staff's schedule for the jail is sufficient to handle coverage in the jail and the public counter. It is recommended to maintain the current staff schedule and deployment for the jail.

Recommendation: Maintain the current approach to scheduling staff in the jail.

(2) Calculation of Net Annual Availability

The project team calculated the net availability hours for jail staff. Net availability is the overall number of hours that staff are available to work a post within the jail. Staff are scheduled to work 2,080 hours per year, but a portion of this time is not actually spent on

duty and being available at the jail. As a result, it is critical to understand the amount of time that detention staff are on leave, hours dedicated to training, and administrative tasks as part of their duties. The impact of each of these factors is determined through an analysis of historic leave and training data provided by the LPD.

The table below outlines the process in detail, of how each contributing factor is calculated to determine jail staff's net availability.

Work Hours Per Year

The total number of scheduled work hours for detention staff, without factoring in leave, training, or anything else that takes officers away from normal on-duty. This factor forms the base number from which other availability factors are subtracted.

Staff work a five day on and two day off schedule, which equates to 40 hours per a week or 2,080 hours annually.

Base number: 2,080 scheduled work hours per year

Total Leave Hours (subtracted from total work hours per year)

Includes all types of leave, as well as injuries and military leave – anything that would cause officers that are normally scheduled to work on a specific day to instead not be on duty. This category excludes on-duty training, administrative time, and on-duty court time.

Calculated from LPD data: 191 hours of leave per year

On-Duty Training Time (subtracted from total work hours per year)

The total number of hours spent per year in training that are completed while on-duty and not on overtime. This number was calculated using data provided to the project team by the department. Note: the project team did not have data to determine the percentage of training conducted on shift versus overtime. Based on the fact that a total of 655 hours of training were provided to staff, but only 456 hours of overtime was worked in the jail in 2018, the project team assumed all training was completed on shift.

Calculated from LPD data: 40 hours of on-duty training time per year

Total Net Available Hours

After subtracting the previous factors from the total work hours per year, the remaining hours comprise the total *net available hours* for officers – the time in which they are available to work after accounting for all leave, on-duty training, and other administrative time. Net availability can also be expressed as a percentage of the base number of work hours per year.

Calculated by subtracting the previously listed factors from the base number:

1,849 net available hours per officer

The following table summarizes this calculation process, displaying how each net factor contributes to the overall net availability of detention supervisors / officers:

Calculation of Jail Net Availability

Base Annual Work Hours		2,080
Total Leave Hours	–	191
On-Duty Training Hours	–	40
Net Available Hours Per Staff	=	1,849

Detention staff are available to work 1,849 hours per year, or 88% of their scheduled time.

Finally, the project team reviewed overtime data for the Jail. In 2018, the jail had a total of 456 hours of overtime. This amount of overtime is low considering the number of vacancies within the jail. Also, over the past three calendar years, the jail has had a total of 11 staff who have left the organization, this is an average turnover of 3.7 positions per year or 17.6%.

(3) Staffing Analysis

In order to determine the staffing needs for the jail, the project team maintained that four posts should be assigned to the jail 24-hours per day. Based on this assumption a total of 35,040 hours are required to staff the jail annually (4 posts X 24 hours per day X 365 days per year). Incorporating net availability, this equates to a total of 18.95 staff to cover these four posts, 24-hours per day.

However, this staffing calculation does not account for turnover. The agency's total annual turnover rate for jail staff is 17.6%. Due to the time it takes to hire, background, and train new officers (academy and on the job training), it may impact the staffing levels of the jail and create overtime. The project team recommends implementing an over-hire program to account for staff turnover. Based on a 17.6% turnover rate, an additional 3.3 staff

would be required. However, not all turnover would occur at the same time within the year, so an additional 3.3 staff are not required.

The current staffing level of 21 total staff for the Jail is proper to provide four posts on each shift and to account for historic turnover rates. The Jail should maintain the current allocation of staff for the jail.

Recommendation: Maintain the current allocation of 21 staff for the jail.

3. Property and Evidence

The Property and Evidence unit is responsible for the intake, catalog, disposal/destruction of property and evidence collected by the LPD. The second task completed by this team is the maintenance of the body worn camera/in car camera footage, including the bookmarking of video with the appropriate calls for service. Finally, staff are responsible for the retrieval of video for open record requests.

The Property and Evidence unit is comprised of a Supervisor and four Technicians. Duties for staff are generally divided by the following operations: one Technician is tasked with the intake processing of new property and evidence items; one Technician is tasked with the disposal/destruction of property and evidence; one Technician performs the body worn camera/in car video bookmarking; and one Technician assists with video bookmarking and retrieval along with assisting in evidence processing/disposal. The supervisor performs all duties but focuses on video bookmarking and video retrieval for open record requests.

The following table shows the 2018 workload for Property and Evidence.

2018 Property and Evidence Workload

Type	Items
Intake	11,231
Purged	9,478
Destroyed	1,828
Auctioned	284
Released to Owner	1,265
Burned	69
Released to Other Agency	48
Deposited	37

A significant portion of the workload for Property and Evidence staff is related to the body worn camera and in car video systems. In 2018, there was a total of 85,976 videos populated by the LPD. This number is expected to increase in the future as the LPD is considering updating the in-car video systems. Furthermore, with potential increases in calls for service and increase in the number of officers in the LPD, the number of videos created would also increase.

In April 2019, staff indicated there was an approximate 4-month backlog of bookmarking videos with the corresponding call for service. It was indicated that among the videos recorded between Aug 27, 2018 and January 18, 2019, there were approximately 5,900 OCAs, with approximately 10,000 videos that were recorded and had not been bookmarked. This is a significant backlog, especially due to the time sensitivity of some items for the judicial system.

The timeframe to complete the bookmarking for videos to the call for service varies for a variety of factors including: if videos were tagged and linked properly, the number of officers responding to the call, if the officer was on another call and went to a new call, etc. These and other variables impact the percentage of correct correlation between the video and call. Staff provided data related to the correct/incorrect labelling of videos. A sample size of 200 videos indicated that 22 were incorrectly labelled, 23 were not labelled at all, and 16 videos were missing. This is approximately a 25% default rate and thus requires more staff time to find and correctly label videos.

In order to overcome the current four-month backlog and in order to proactively prepare for the additional workload related to increased in-car videos and new officers, a new Technician position is recommended immediately. This is an area that many law enforcement agencies have seen a recent increase in workload and it is expected to continue in the future.

Recommendation. One Supervisor and five (5) Technicians are recommended for Property and Evidence. This is an increase in one authorized Technician position.

4. District Attorney Liaison

The District Attorney (DA) Liaison unit is comprised of a Sergeant and two Clerks and is tasked with reviewing case files and associated paperwork to help ensure proper documentation for cases before the municipal and district courts. Staff also assist with resolving issues with cases/reports and to provide a dedicated point of contact between the LPD and justice system. Also, the Sergeant is responsible for presentation of the LPD's case to the Grand Jury. Finally, the team helps to schedule officers when they have an upcoming court appearance.

The current approach by the LPD with the DA Liaison team is an efficient and effective use of a dedicated team to handle the majority of cases that are going before the judicial system. This allows officers to focus on their primary duties, while the team interacts with the judicial system, resulting in a consistent approach to providing case material and reports, the same staff member presenting to the grand jury when needed, and developing a rapport with appropriate judicial system contacts.

The two Clerks are tasked with uploading reports and officer videos (BWC and in-car) through the electronic filing system. During interviews it was indicated that the Clerks are approximately two months behind on filing reports/cases with the Denton County District Attorney's office.

The workload associated with unit is primarily a result of the number of arrests and reports completed by Patrol. Detectives generally prepare and submit their respective cases to the district attorney / grand jury. This approach is consistent with most agencies due to the complexity of cases developed by investigators and their thorough knowledge of their cases.

Due to the expected increase in the number of patrol officers and the current backlog of work, it is recommended to increase the number of Clerks to three. The backlog of work is only approximately two months and the number of staff will likely only increase incrementally over the next few years, which does not equate to a need for a full time clerk. In addition to assisting with developing the case packet for the justice system, this Clerk should also be responsible for reviewing NIBRS coding and data collection.

NIBRS coding does not require a full time staff member completing this task, but is an essential function that needs to be done on a continuous basis. Currently, NIBRS coding falls upon the Data / Crime Analyst under Detectives. Transitioning NIBRS coding to a Clerk will alleviate the workload burden on the Data / Crime Analyst, while providing support for the DA Liaison Clerks. Alternatively, NIBRS coding may transition to Records staff upon the implementation of the new RMS system and greater efficiencies are gained in Records.

Recommendation: Create one additional Case Clerk position under the DA Liaison to assist with case packet development. NIBRS coding functions should transition from the Data / Crime Analyst to the new Clerk position.

5. Warrants

Warrants is comprised of three authorized Officer positions and is supervised by the DA Liaison Sergeant. The Warrants unit is responsible for the location and apprehension of individuals with outstanding Lewisville warrants. This includes the transportation of individuals arrested from other jurisdictions to Lewisville. Furthermore, the Warrant Officers serve as the bailiff for the Lewisville Municipal Court, ensure court paperwork is properly signed and documented, and develop payment plans for fines and warrants.

Two officers are assigned to work Monday – Thursday and the third officer works Wednesday – Saturday.

In April 2019, there were a total of 12,748 warrants in Lewisville, with a total of 7,536 defendants.

In reviewing current operations, the project team noted the following challenges associated with Warrants:

- While serving as bailiffs in Municipal Court, officers are utilized to shuttle paperwork between the courtroom and the judge. This takes the bailiff out of the courtroom. Also, the Warrant Officer is also responsible for making copies of the signed paperwork for record retention. They are completing tasks that could be completed by a Clerk or other civilian municipal court employee.
- Warrant Officers are also tasked with developing or negotiating payment plans for warrants. It was indicated that many of the warrants were issued as a result of outstanding fines or court fees. In many justice systems, payment plans for fines and fees are negotiated by Municipal Court staff. Payment plans are traditionally developed by the court and not a Warrant Officer.
- Warrants has minimal support staff to answer phones, conduct research related to individuals who have an outstanding warrant, or to assist with other administrative tasks.
- Due to the court schedule (4 days per week) and the officer schedule, Wednesday and Thursday are the primary days that staff have greater flexibility to be in the field investigating whereabouts of offenders, making arrests, and transporting individuals.

Each of the four issues noted above impact the ability of officers to focus on reducing the number of outstanding warrants and proactively investigating offender locations. The project team recommends the following changes to the Warrant team:

- Continue to provide bailiff functions to the Lewisville Municipal Court, but the court should transition to court personnel to shuttle paperwork between the courtroom and judicial chambers. This will allow the officer to focus on bailiff and warrant officer duties versus serving as clerk for the court. The utilization of court staff is less costly than adding more officers to the warrant team.
- The Municipal Court should be tasked with developing or negotiating payment plans for existing warrants. The common practice across the Country is for the court to set alternative approaches to incarceration (e.g. payment plans) and administer the collection of these fees. Court staff will be able to provide a more consistent approach to developing and administering the payment plans. In the instance where the offender violates the terms of conditions, then court staff member may process the paperwork to reactivate the warrant. Court staff are more cost effective than using Warrant Officers to perform these duties.

- A civilian position should be added to the Warrants team in two years to assist with backgrounding and searching applicable social media and online resources to locate individuals with outstanding warrants. This will provide a consistent approach to researching the active warrants and provide a dedicated proactive approach to locating individuals. Also, this staff member can provide administrative support to the team and be an in-office resource allowing officers increased time in the field.

Implementing these changes to the Warrant team will provide cost effective approaches to completing tasks that are currently handled by officers, align more with common practice in other jurisdictions, and help reduce the number of outstanding warrants. Freeing officers to be in the field more frequently should be a key goal for the LPD.

Recommendations:

Transition the completion of administrative tasks currently conducted by Warrant Officers for the Municipal Court to court staff.

The Municipal Court should be tasked with the development and administration of payment plans for individuals with outstanding warrants versus officers.

Create the position of Warrant Technician in the FY 2021 budget to complete administrative tasks and proactively conduct internet / social media research for individuals with outstanding warrants.

6. Training

The Training Section is comprised of two sworn staff, a Sergeant and an Officer. The Sergeant is also the supervisor for the K9 unit, SWAT team Commander and coordinator for “off duty” hiring. The training Unit conducts a TCOLE certified “in house” Academy and provides in-service training to tenured officers. Members of the training unit coordinate and teach classes, inputs training records and schedules range use with multiple agencies. The Sergeant coordinates SWAT training and equipment purchases and repair and is also responsible for issuing police uniforms and equipment (Due to current vacancy for quarter master at the Fire Department). Additionally, the sergeant plans special events and coordinates billing.

The training unit reported the following training performance measures for 2018:

Activity	Number	Hours
Police Officers Trained	154	15,853
Dispatchers Trained	25	1,356
Jailers Trained	17	655
Instructors Used	30	2,278

LPD officers averaged 102 hours of training in 2018 (this does not include SWAT, K9 or some other specialty classes offered in house or by the city). This is a higher number of hours than we typically see for similar sized departments.

The Training Sergeants role as SWAT team leader also comes with additional responsibilities for coordinating training for the team, purchasing and maintaining equipment and responding to call outs. The training unit coordinates the use of the firing ranges which are used by 13 other agencies on a fee basis.

Many of the functions and tasks that are completed by the unit are administrative and do not require law enforcement certification or training to complete. Off duty hiring, quartermaster functions, ordering materials and inputting training records into a database require significant time.

The most effective use of sworn positions is in duties and roles that require sworn law enforcement training and experience. The significant number of administrative tasks that fall under the duties of the sergeant distract from the training sergeants' primary roles of organizing and delivering training for the department. Ideally the Training sergeant would assist with the delivery of training, researching emerging trends, reviewing department incidents to see if there is a gap in training that could be mitigated and attending training and seminars to improve their knowledge of national training trends. With the current administrative workload this is difficult to accomplish.

The police department and the fire department share a quartermaster which is typically best practice where there is not enough work for a full-time position in each department which is the case in Lewisville. The current Quartermaster position is part of the Fire Department which can cause a delay in acquiring equipment and uniforms. Though there is not a full time need for a quartermaster position in the police department, there is enough work to justify making it part of another function within the police department.

To be more effective the Training unit should add an administrative position to take over administrative tasks to include, scheduling, updating training records, coordinating off-duty hiring, ordering materials and quartermaster functions.

Recommendation: Create an administrative support position in Training.

7. K9

The K9 unit consists of two handlers who report to the Training Sergeant. The K9s work 4-10s with Tuesdays in common for training. The K9s are dual purpose; tracking and narcotic detection.

The K9 units are assigned to the Training Sergeant who works different hours and is not assigned to the street. There are patrol sergeants who can assist and supervise them

during calls for service, but they are not their direct supervisors. Effective supervision requires the direct supervisor to be able to observe and assist as well as respond as a resource. In this case the schedules and assignments do align to provide proper supervision.

Many agencies that have fewer K9 resources (teams) assign them to a shift where they are supervised by a sergeant that works the same shift. Having a supervisor work the same shift allows more interactions between K9 and their supervisors. To be an effective K9 supervisor does not require the sergeant to have specific K9 skills, but does require some additional K9 knowledge which can be learned on the job and through working with the K9 teams on deployments. K9 use of force typically requires K9 specific reporting that documents, bites, and other relevant factors that are specific to the use of K9.

Recommendations:

The K9 teams should be assigned to patrol with specific sergeants that match the majority of their shifts.

8. SWAT / HNT (Collateral Duty Assignments)

SWAT and Hostage Negotiators are collateral duties for each of the members. The SWAT team consists of 26 sworn members with 18 being operators and 6 as support. The Operators train a minimum of 16 hours per month. The Hostage Negotiation team consists of 1 sergeant 5 officers. They are deployed on barricades and can assist on suicidal calls.

There were 20 activations in 2018 which included serving 13 narcotic warrants. The SWAT/ HNT units provide LPD with highly trained personnel with additional equipment to respond to critical incidents where more training and proper equipment may reduce the risk to the community and the police.

SWAT/HNT are able to meet the current call out and warrant service workload utilizing the current collateral duty service model. SWAT/ HNT provide a valuable resource to the city for critical incidents where more training and specialized equipment and skills can help resolve incidents with less risk to the public or other officers.

To meet NTOA (National Tactical Officers Association) standards the SWAT team must train a minimum of 16 hours per month with a 40-hour SWAT specific annual in-service. The LPD SWAT team meets this standard.

To meet the NCNA (National Crisis Negotiators Association) standard HNT must receive 8 hours training per quarter with a 40-hour HNT specific in-service or training per year for a total of 72 hours annually. Recently the members of HNT have not attended the 40-hour training.

Though some communities still call their negotiation teams “Hostage Negotiation Team” many are moving to rename their units “Crisis Negotiation Team” to more accurately reflect their larger roles and because of the very few instances when they are deployed on actual hostage situations.

Recommendations:

Maintain current staffing of SWAT/HNT as a collateral duty.

Ensure the SWAT/HNT teams meet minimum industry standards for training.

Consider renaming the HNT to better reflect their entire mission.

9. Personnel

The Personnel unit consists of one police officer who is responsible for recruiting and assigning backgrounds. The officer has collateral duties as an instructor and as a SWAT support officer. The department utilizes an online application process through Indeed and GOVJOBS.COM. The officer recruits through in person appearance at events (approximately one a month) and through the use of social media.

The department had the following openings as of May 2018:

- 8 officers
- 6 dispatchers
- 2 Call takers
- 5 Detention Officers
- 1 Chief’s Secretary

All hiring is coordinated through City HR, though the police department is responsible for the background process. The recruiting officer is also assigned individual projects as well. Though there are current openings, the personnel officer is current on tasks.

The personnel officer is active at recruiting, however, there are currently 22 openings in the department. During the course of our interviews the project team learned that the personnel officer has several tasks unrelated to recruiting or hiring of additional personnel including some special one-time assignments or tasks that limit their ability to spend more time recruiting or developing different recruiting approaches.

To be effective at recruiting requires time to attend recruiting events, coordinating the hiring process and backgrounds and developing new recruitment material. This is especially true with today’s recruitment challenges, strong competition for a limited pool of qualified applicants and personnel shortages.

There is enough work in recruiting and testing new applicants for one full time position without collateral duties.

Recommendations:

Maintain current staffing of 1 officer for Personnel services

Limit the number of additional tasks and collateral duties for the personnel officer.

4. Analysis of Investigations

Investigations consists of four investigative units and Crime Analysis. Investigations is led by a Captain and each of the investigative units are led by sergeants. Investigations consists of follow up on cases initiated by both patrol and proactive investigations. The investigative units are: Property Crimes, CAPERS (Person Crimes), Street Crimes and Narcotics.

Unit/Division	Curr.	Auth.	Position
Administration	1	1	Captain
	1	1	Administrative Assistant
Property Crimes	1	1	Sergeant
	9	9	Detective
	0	1	Intern (Paid)
CAPERS	1	1	Sergeant
	6	6	Detective
	1	1	Crime Scene Tech.
	1	1	Victim Advocate
Street Crimes	1	1	Sergeant
	3	6	Detective
	2	2	Officer
Narcotic	1	1	Sergeant
	5	5	Detective
Crime Analysis	1	1	Public Safety Tech

1. Administration

The administration component of the Investigations consists of a Captain and Administrative Assistant. The Captain has other assigned tasks in addition to providing day to day leadership. The current organizational structure is similar to those in other law enforcement agencies of similar size and command structure. The Captain has a total of six direct reports, which is appropriate based on the type of operations they oversee.

Recommendations:

Maintain a Captain position to oversee Investigations.

Maintain current staffing of one Administrative Assistant.

2. Property Crimes

Property Crimes consists of 1 sergeant, 9 Detectives and 1 Intern. They provide follow up on property related crimes. The unit is divided into Financial/Fraud, Auto Theft/ Auto Burglary and Generalist Property Crimes. The intern is responsible for recovery of video evidence from crime scenes. The unit reported the following caseloads for 2018:

Number of Cases Assigned 2018	Number of Detectives	Avg. Number per Detective	Avg. Number per month
1,858	9	206.4	17

As the table indicates, the average property crimes detective was assigned 17 new cases per month. Due to investigative processes of interviews, evidence collections, writing search warrants, writing arrest warrants, recovering and reviewing video evidence and other investigative techniques with added consultation with the prosecutors’ offices, most property crimes detectives can effectively work approximately 12 to 15 new cases per month depending on the complexity of each case. The Property Crimes Detectives are assigned more cases per month than can be effectively worked.

To reduce caseloads to approximately 13 new cases per detective per month would require an additional 3 detectives as the following table indicates:

2018 Assigned Caseload	Proposed Number of Detectives	Avg. Number per Detective	Avg. Number per month
1,858	12	154.8	12.9

The reduced caseloads would place property crimes detectives within the effective range of caseloads for similarly situated property crimes detectives of 12-15 new cases per month.

The current span of control for supervision the property crimes unit is 1 sergeant to 9 detectives, which is at the upper end of effective supervision. Adding 3 detectives would require an additional sergeant to reduce the span of control to 1 sergeant to 6 detectives.

Appropriate spans of control are important because they can directly impact a supervisor’s ability to properly monitor subordinates. With large spans of control supervisors have less time to spend with each subordinate. This can affect mentoring, ability to detect problems, review work product and reduced access by each subordinate.

The intern was assigned 455 video recovery cases for which there are no direct performance measures. In other studies that have been conducted, video recovery has been estimated at approximately one hour per video recovery, including travel time. Total

workload for the intern is estimated at 455 hours for just video recovery and does not include processing, reviewing or placing into evidence.

Video recovery and other assigned tasks is enough to justify a full-time position as is the current case with the intern position. With the increase in public and private video sources the workload likely will increase proportionally.

Recommendations:

Increase current staffing of property crimes detectives by 3 detectives for a total of 12 property crimes detectives.

Add an additional sergeant to the property crimes unit for a total of 2 sergeants.

Maintain current staffing of 1 intern for video recovery and other tasks.

3. CAPERS

CAPERS consists of 1 sergeant, 6 Detectives, 1 Crime Scene Technician, and 1 Victim Advocate (Sworn). They provide follow up on person related crimes. The unit is divided into Family Violence, Juvenile (Victim and Suspects) and Generalist Person Crimes. The Crime Scene Technician is responsible for recovery evidence from crime scenes. The Victim Advocate is assigned a smaller family violence caseload. The unit reported the following caseloads for 2018:

2018 Assigned Caseload	Number of Detectives	Avg. Number per Detective	Avg. Number per month
1,212	6	202	16.3

As the table indicates the average CAPER detective was assigned 16 new cases per month. Due to investigative processes of interviews, evidence collections, writing search warrants, writing arrest warrants, recovering and reviewing video evidence (including Body Worn Camera Video) and other investigative techniques, cell phone downloads with added consultation with the prosecutors' offices, most person crime detectives can effectively work approximately 6 to 8 new cases per month depending on the complexity of each case. The Person Crimes Detectives are assigned more cases per month than can be effectively worked.

Some CAPERS detectives have collateral duties including crime scene processing and cell phone downloads. Detectives conducted approximately 350 cell phone downloads last year. Each download takes a minimum of one hour, though many phones take much longer. Apple phones must be sent off to the lab for downloads. Detectives are called out to scenes approximately 20 times each per year. Additionally, CAPERS detectives handle homicide cases as well.

The two detectives that are assigned juvenile crimes, handled 42 ICAC cases last year which are more complicated than many person crime cases. They also sit in on forensic interviews that take approximately 2 to 3 hours per interview. The 2 detectives also handled 1,493 CPS referrals, though not all resulted in full investigations.

There was a total of 1,791 cases that were not assigned out in 2018 due to lack of resources or poor solvability factors.

To reduce caseloads to an average that falls within an effective range in person crimes the unit would need to add 7 detectives for a total of 13 person crimes detectives as the table below indicates:

2018 Assigned caseload	Proposed Number of Detectives	Avg. Number per Detective	Avg. Number per month
1,212	13	93.2	7.7

The current span of control for supervision the person crimes unit is 1 sergeant to 8 direct reports, which is at the upper end of effective supervision. As noted above limited spans of control are important to providing effective supervision. Adding 7 detectives would require an additional sergeant to reduce the span of control to 1 sergeant to 8 detectives.

The Crime Scene Technician was assigned 188 evidence collection or processing cases for which there are no direct performance measures as each process takes different amounts of time. The crime scene technician works the day shift hours of 8am to 5pm, Monday through Friday. There is no on call response for the Crime Scene Technician which required detectives to process their own crime scenes approximately 20 times in 2018. The detectives only respond to the most serious person crimes where crime scene and evidence is most critical. Though it only occurs about 20 times a year the cases the detectives are responding are the most critical and should be processed by the highly trained Crime Scene Technician.

With additional detectives added there will be more crime scene and evidence processing than one crime scene technician can reasonably handle. Adding one additional crime scene technician will expand the number of crime scenes that can be processed and allow for better coverage and crime scene and evidence processing.

As noted above, detectives process critical crime scenes after hours. The crime scene technicians should be on call for response to serious felony incidents.

The Crime Victim Advocate makes contact with victims of person crimes and notifies them of available resources. The advocate is also responsible for arranging protection orders, arranging shelter, and U visa processing (approximately 12 per month). Because of high caseloads in person crimes the Crime Victim Advocate also carries a limited investigative

caseload for domestic violence crimes. A crime victim advocate role is much different than an investigative position and it is unusual to combine the roles as is the case in Lewisville. The current crime victim advocate is a sworn member of the agency which is also not typical as many departments utilize civilian personnel for this role.

Most of the roles and tasks of the crime victim advocate do not require law enforcement training or experience with the exception of the domestic violence caseload. Many tasks such as filling out paperwork are administrative and can be accomplished by personnel without specific law enforcement training.

Recommendations:

Increase current staffing of person crimes detectives by 7 detectives for a total of 13, person crimes detectives.

Add an additional sergeant to the person crimes unit for a total of 2 sergeants.

Increase staffing of crime scene by 1 technician for a total of 2 crime scene technicians.

The Crime Scene Technicians should be on call for serious felony crime call outs.

Remove the caseload from the Crime Victim Advocate and re-assign to person crimes detectives.

Long term, convert the crime victim advocate position a civilian position.

4. Street Crimes

The Street Crimes Detectives are a proactive unit but are assigned cases as well. The unit consists of a sergeant, 5 detectives (6 authorized) and 2 officers; 5 detectives are assigned to street crimes and the 2 officers are assigned to gangs. The unit conducts surveillance for detectives and investigates human trafficking, car thefts and drug houses. The gang unit is responsible for documenting known gang members using established legal methods. There are approximately 350 documented gang members in Lewisville. There were 12 gang related cases in 2018. The unit reported the following caseloads for 2018:

Number of Cases Assigned 2018	Number of Detectives/Ofcs	Avg. Number per Detective	Avg. Number per month
350	5	70	5.8

As the table indicates the average Street Crimes Detective was assigned or generated 5.8 new cases per month. Street Crimes is a mostly proactive unit that generates their own cases, though they do support other investigative units on a routine basis. At nearly 6 cases per month along with supporting other investigative units the Street Crimes Detectives are very active.

Street crimes detectives typical work in pairs to provide contact-cover necessary for street searches and to perform other tasks safely. To increase the effectiveness of the unit one additional detective should be added as there are sufficient caseloads and other tasks to justify the position. This would be 2 less detectives than currently authorized.

Recommendation: Maintain current authorized staffing of six detectives, 2 officers and 1 sergeant for a total of 9 sworn personnel.

5. Narcotics

The Narcotics Detectives are a proactive unit but are assigned cases as well. The unit consists of a sergeant and 5 detectives. One detective is assigned full time to the DEA task force. The unit conducts investigations into narcotic trafficking in Lewisville including surveillance and using informants. The unit reported the following caseloads for 2018.

Number of Cases Assigned 2018	Number of Detectives	Avg. Number per Detective	Avg. Number per month
257	4	64.2	5.3

As the table indicates the average Narcotics Detective was assigned or generated 5.3 new cases per month. Narcotic investigations take longer to conclude than most cases because they often rely on informants and surveillance which can take long periods of time to coordinate. At nearly 5.3 cases per month the unit is very active.

Narcotic detectives are adequately staffed for a proactive investigative unit. There are sufficient caseloads to justify the positions and as a proactive unit there is enough time with current caseloads to be proactively working to reduce/mitigate narcotic activities in Lewisville.

Recommendation: Maintain current staffing of 5 detectives (1 detached to DEA) and 1 sergeant.

6. Crime Analysis

The LPD has a Public Safety Data Technician that is responsible for reviewing officer reports for proper NIBRS coding and reporting LPD's offenses to appropriate state and

federal agencies. This staff member is also responsible for conducting crime analysis for the department, which includes compiling monthly and annual statistics. Furthermore, this position is also responsible for administering the LPD's record management system, jail management system, and in-car video system. During interviews it was indicated that there is an approximate three to four-month backlog on NIBRS coding and that crime analysis is mostly reactive and based upon requests.

In the project team experience, it is unusual that both NIBRS coding and crime analysis are completed by the same staff member in an organization the size of LPD. Furthermore, it is also unique in Lewisville that most of the department's software platforms are administered by this position. In many law enforcement agencies, the NIBRS coding function is completed by Records staff who are also responsible for ensuring that reports are complete and properly uploaded/stored in the Records Management System.

Ideally, crime analysis functions should be proactive and performing analysis on the most recent calls for services, etc. Developing current trends is generally most beneficial to both investigators and patrol staff. Trends are utilized to deploy resources to current hot spot areas. However, with a three to four-month backlog of crime analysis, it is difficult to develop real time trends. Due to the backlog, crime analysis has primarily focused on statistical reporting. The current approach is not ideal to providing real time information.

The task of NIBRS coding should be moved to the recommended DA Liaison (Case) Clerk position to free up time for the Crime Analysis to be more proactive.

Recommendations:

Maintain current staffing of 1 Crime Analyst.

Move the task of NBIRS coding to the new recommended case clerk position in DA Liaison.

5. Analysis of Operations Support

Operations Support is comprised of Resources, Traffic and Fleet. Operations Support is led by a Captain. The operations support Captain has assigned tasks of Towing Contract Manager, Texas Best Practices Program Manager, Fleet and Case Review. The following table outlines the staffing levels of the Operation Support.

Unit/Division	Curr.	Auth.	Position
Administration	1	1	Captain
Resources	1 9 4 1	1 9 4 1	Sergeant SROs (Officer) NROs (Officer) Parking Enforcement (Non-sworn)
Traffic	1 9	1 10	Supervisor Officer
Fleet	2	2	Vehicle Maintenance Officers

1. Administration

The administration component of the Operation Support consists of a Captain who is tasked with providing day to day leadership. The current organizational structure is similar to those in other law enforcement agencies of similar size and command structure. The Captain has a total of seven direct reports, which is appropriate based on the type of operations they oversee.

Recommendation: Maintain the Captain position to oversee Operation Support.

2. Resources

Resources consists of the School Resource Officer Unit, Neighborhood Resource Officer Unit and Parking Enforcement. The unit is comprised of 1 sergeant, 9 officers and 1 parking enforcement officer (non-sworn).

Neighborhood Resource Officers provide targeted enforcement of livability related issues (Abandoned auto's, homeless, and problem properties). They coordinate their efforts with patrol and other city entities. There is 1 NRO for each of the 4 patrol districts. Having a dedicated NRO for each patrol zone provides the community with a dedicated officer to address livability issues within their neighborhoods and also provides patrol with a single point of contact for long term community issues. The current NRO configuration is effective at addressing livability issues. It should be noted that in the Patrol District

analysis the project team recommended creating a fifth patrol district. Therefore, it is recommended to increase the number of NRO's to five upon creation of the fifth patrol district.

The School Resource Officers work day shift at the High and Middle School. These positions are 50% funded by the Lewisville ISD. SROs teach classes, attend after school functions and conduct assigned investigations. The SROs reported the following caseloads for 2018:

Number of Cases Assigned 2018	Number of Officers	Avg. Number per Officer	Avg. Number per month
111	6	18.5	1.5

As the table indicates each officer averages 18.5 cases per year. The above caseloads are in addition to other work performed.

There is one public high school with three campuses, each of which are over 1,000 students. Additionally, there are five middle schools located within Lewisville and Castle Hills. The high school is very large, with a student population of 2,149 in the main campus, 1,285 in the Killough campus, and 1,035 in the Harmon campus. Additionally, there are 15 Elementary schools. Using a ratio of approximately one officer per thousand students in the high schools, four officers would be required, leaving an additional five officers to cover the elementary and middle schools. Consequently, a total of nine SRO officers are needed.

Parking Patrol is assigned to the old town area of the City, though there are other areas where parking patrol could be utilized. The Parking Enforcement Officer is limited to operating in Old Town, though there are parking and abandoned vehicle related issues in other parts of Lewisville. Officers in the NRO section currently handle these other areas however they are mostly reactive and are not proactive in mitigating parking issues and abandoned autos.

Adding a second parking enforcement officer would increase the ability of the police department to be proactive in addressing vehicle related issues in neighborhoods and other business areas within the city.

The current span of control for the sergeant includes SROs, NROs and Parking Enforcement for a ratio of 1 sergeant to 14 direct reports. SRO and NRO functions are very distinct and SRO investigations involve navigating school and parent involvement which can be very complex with enhanced liability and the potential for negative exposure. Many agencies mitigate this by having a dedicated SRO sergeant(s) that are familiar with school staff and administration and are aware of specific district policies that can impact the delivery of police service.

Recommendations:

Add one additional sergeant in resources for a total of two sergeants (1 dedicated to NRO/ Parking and 1 dedicated to SROs).

Split the roles of sergeants with two being assigned to the SRO program and one to oversee the NRO and Parking Enforcement programs.

Add one Neighborhood Resource Officer for a total of 5 when the fifth patrol district is created.

Maintain SRO staffing of 9 SROs.

Add one Parking Enforcement officer (non-sworn) for a total of 2.

3. Traffic

The traffic unit consists of 1 sergeant and 10 officers who provide enhanced traffic enforcement in areas where there are high crash rates, reported speeding or neighborhood complaints. 9 of the officers' work traffic enforcement and 1 officer is assigned to investigate hit and run accidents. Fatal crashes that occur in Lewisville are investigated by LPD. Additionally, LPD assists other agencies with fatal investigations through a multi-agency MOU when requested.

The traffic unit reported the following traffic related performance measures for 2018:

Activity	Number of Officers	Total for Year	Avg. Number per Officer	Avg. Number per month
Citations Issued	10	13,141	1,314	111.7
Warnings	10	1,037	103	8.5

The above table indicates that the average traffic officer is making at least 120 traffic stops a month and issuing approximately 111 traffic citations. Traffic officers also investigate traffic accidents and assist with traffic control. The span of control in the Traffic Unit is 1 sergeant to 10 officers.

The traffic unit with the exception of the hit and run investigator is a proactive unit with the goal of reducing crashes within the city of Lewisville. Current staffing is effective at meeting this goal as their adequate resources to respond to injury crashes, patrol high crash locations and to respond to traffic related complaints.

As noted above the span of control is over the recommended ratio of 1 to 6-9. Adding a sergeant would reduce the span of control and could provide additional help to the one hit and run investigator.

Recommendations:

Maintain the current staffing of 10 officers assigned to Traffic.

Add one sergeant for a total of 2 sergeants.

4. Fleet

The Fleet unit consists of 2 Fleet Maintenance Officers (Non-sworn). The two Vehicle Maintenance Officers are responsible for coordinating maintenance of vehicles and performing minor “curb side” maintenance. The fleet consists of approximately 70 vehicles. There were 42 vehicle crashes in 2017 (most recent data provided) which required coordination with auto repair facilities. Each of the vehicles require oil changes and routine maintenance. New vehicles require upfitting prior to entering service and retired vehicles must be stripped of police equipment once removed from service. The Fleet unit is able to meet current demands for service.

Recommendation: Maintain current staffing of two fleet maintenance officers.

6. Analysis of Patrol

1. Analysis of Patrol Workload

The following sections provide analysis of patrol workload and other issues relating to the effectiveness of field services.

(1) CAD Analysis Methodology

Our project team has calculated the community-generated workload of the department by analyzing incident records in the computer aided dispatch (CAD) database, covering the entirety of calendar year 2018.

For incidents to be identified as community-generated calls for service and included in our analysis of patrol, each of the following conditions needed to be met:

- The incident must have been unique.
- The incident must have been first created in calendar year 2018.
- The incident must have involved at least one officer assigned to patrol, as identified by the individual unit codes of each response to the call.
- The incident type of the event must have sufficiently corresponded to a community-generated event. Call types that could be identified with a high level of certainty as being either self-initiated (e.g., traffic stops) or other kinds of activity generated by the department (e.g., directed patrol), have not been counted as community-generated calls for service.
- There must have been no major irregularities or issues with the data recorded for the incident that would prevent sufficient analysis, such as having no unit code or lack of any time stamps.

After filtering through the data using the methodology outlined above, the remaining incidents represent the community-generated calls for service handled by LPD patrol units.

(2) Calls for Service by Hour and Weekday

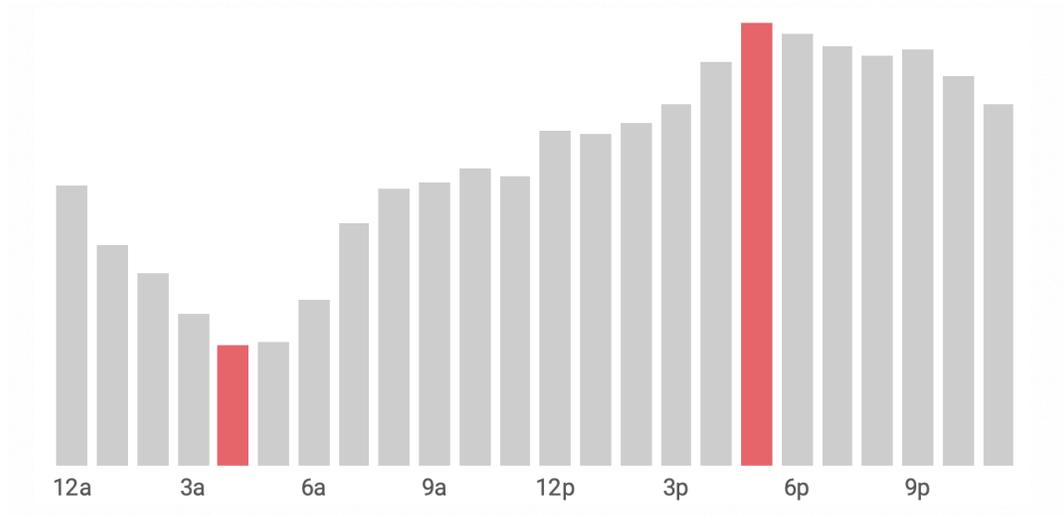
The following table displays the total number of calls for service handled by patrol units by each hour and day of the week:

Calls for Service by Hour and Weekday

Hour	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Total
12am	364	218	179	185	184	180	277	1,587
1am	276	173	124	123	154	144	260	1,254
2am	227	128	125	131	118	134	227	1,090
3am	190	124	100	82	113	95	155	859
4am	153	104	72	68	69	110	109	685
5am	125	108	81	94	88	99	110	705
6am	105	142	150	148	130	137	127	939
7am	146	215	187	224	214	214	174	1,374
8am	186	239	227	240	211	262	211	1,576
9am	179	234	246	221	213	251	261	1,605
10am	239	243	222	250	226	243	261	1,684
11am	254	218	234	216	197	260	268	1,647
12pm	296	258	268	275	239	276	290	1,902
1pm	267	261	263	250	241	268	330	1,880
2pm	305	274	256	235	251	314	310	1,945
3pm	254	284	275	287	304	349	303	2,056
4pm	295	337	327	325	319	364	322	2,289
5pm	326	402	369	346	417	331	324	2,515
6pm	330	359	345	354	346	375	342	2,451
7pm	319	315	323	323	374	395	335	2,384
8pm	319	316	310	329	312	393	353	2,332
9pm	320	312	299	322	330	375	409	2,367
10pm	289	272	297	294	295	376	391	2,214
11pm	256	257	242	246	227	380	441	2,049
Total	6,020	5,793	5,521	5,568	5,572	6,325	6,590	41,389

Call for service activity is markedly higher on Friday and Saturday evenings, with over about 30% of the number of incidents occurring during those hours. Mornings universally feature low call volumes relative to the afternoon and evening hours. The following chart provides a distribution of calls by hour, aggregating the days of the week together:

Calls for Service by Hour



Call activity picks up sharply in the late afternoon, particularly from 4:00PM to 6:00PM. On most days, the increase represents about a 50% higher call volume compared to the preceding hours.

(3) Calls for Service by Month

The following table displays calls for service totals by month, showing seasonal variation as a percentage difference from the quarterly average:

Calls for Service by Month

Month	# of CFS	Seasonal +/-
Jan	3,327	
Feb	3,145	-2.4%
Mar	3,631	
Apr	3,479	
May	3,637	+3.4%
Jun	3,581	
Jul	3,595	
Aug	3,462	+0.6%
Sep	3,351	
Oct	3,363	
Nov	3,324	-1.6%
Dec	3,494	
Total	41,389	

Interestingly, calls occur more often during the spring months than in any other quarter, although the difference is not significant. This is likely a reflection of Lewisville’s climate. In jurisdictions with more severe winters, there is often a 15-20% spread between call activity in winter and summer months. Here, that is clearly not the case, with just a 3.2% total spread between the winter (-2.4%) and summer (0.6%) quarters.

(4) Most Common Types of Calls for Service

The following table provides the ten most common incident categories of calls for service handled by patrol units over the last year, as well as the average call handling time (HT)¹ for each:

Most Common Call for Service Categories

Incident Type	# CFS	HT	12a	4a	8a	12p	4p	8p
BURGLARY ALARM	4,815	18.2						
SUSPICIOUS CIRCUM	2,805	31.8						
MINOR ACCIDENT	2,707	88.4						
DISTURBANCE	2,548	50.5						
TRAFFIC HAZARD	2,197	25.2						
WELFARE CONCERN	2,177	44.6						
FAMILY VIOLENCE	1,985	82.7						
NOISE DISTURBANCE	1,752	23.3						
THEFT	1,724	112.6						
MAJOR ACCIDENT	1,291	126.5						
All Other Types	17,388	60.9						
Total	41,389	56.0						

At 56 minutes per call for service, average handling time (labeled “HT”) for primary units is relatively high. Some of the most significant contributors to this average are minor accidents (6.5% of calls), which average 88.4 minutes each, as well as thefts and major

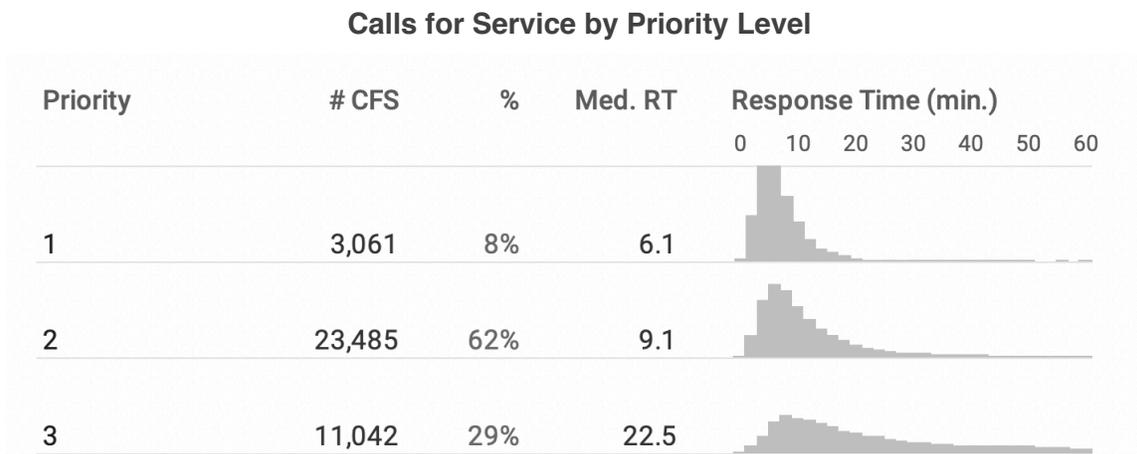
¹ Handling time is defined as the total time in which a patrol unit was assigned to an incident. It is calculated as the difference between the recorded time stamps the unit being dispatched and cleared from the incident.

accidents, which combine for slightly more incidents average about 113 and 127 minutes per call, respectively.

The distribution of when the most common incidents occur is in many cases sharply defined. Burglary alarm calls, for example, mostly occur from between 7:00AM and 11:00AM. Interestingly, minor accident calls occur far more often during the evening commute hours in contrast with the morning commute. Not surprisingly, noise disturbances pick up sharply from about 9:00PM to 1:00AM.

(5) Calls for Service by Priority Level

The following table displays call for service statistics by priority level, as well as the median response time (labeled “RT”) and distribution of response times:



Overall, the median response time for all calls for service is approximately 10.7 minutes. The flatter the distribution of response times, the less likely it is for a call to be responded to within a certain timeframe. While the vast majority of priority 1 calls are responded to within 10 minutes, the same cannot be said for priority 3 calls for service. Priority levels 4 and 9 are not shown, as they represent too insignificant of a percentage of community-generated incidents.

2. Analysis of Patrol Resource Needs

Analysis of the community-generated workload handled by patrol units is at the core of analyzing field staffing needs. Developing an understanding of where, when, and what types of calls are received provides a detailed account of the service needs of the community, and by measuring the time used in responding and handling these calls, the staffing requirements for meeting the community’s service needs can then be determined.

To provide a high level of service, it is not enough for patrol units to function as call responders. Instead, officers must have sufficient time outside of community-driven

workload to proactively address community issues, conduct problem-oriented policing, and perform other self-directed engagement activities within the community. As a result, patrol staffing needs are calculated not only from a standpoint of the capacity of current resources to handle workloads, but also their ability to provide a certain level of service beyond responding to calls.

With this focus in mind, the following sections examine the process used by the project team to determine the patrol resource needs of the Lewisville Police Department based on current workloads, staff availability, and service level objectives.

(1) Overview of the Resource Needs Analysis

An objective and accurate assessment of patrol staffing requires analysis of the following three factors:

- i.* The number of community-generated workload hours handled by patrol.
- ii.* The total number of hours that patrol is on-duty and able to handle those workloads, based on current staffing numbers and net availability factors (e.g., leave, administrative time, etc.).
- iii.* The remaining amount of time that patrol has to be proactive, which can also be referred to as “uncommitted” time.

This study defines the result of this process as, patrol proactivity, or the percentage of patrol officers’ time in which they are available and on-duty that is not spent responding to community-generated calls for service. This calculation can also be expressed visually as an equation:

$$\frac{\text{Total Net Available Hours} - \text{Total CFS Workload Hours}}{\text{Total Net Available Hours}} = \% \text{ Proactivity}$$

The result of this equation is the overall level of proactivity in patrol, which in turn provides a model for the ability of patrol units to be proactive given current resources and community-generated workloads. There are some qualifications to this, which include the following:

- Optimal proactivity levels are a generalized target, and a single percentage should be applied to every agency. The actual needs of an individual department vary based on a number of factors, including:
 - Other resources the department has to proactively engage with the community and address issues, such as a dedicated proactive unit.

- Community expectations and ability to support a certain level of service.
- Whether fluctuations in the workload levels throughout the day require additional or fewer resources to be staffed to provide adequate coverage.
- Sufficient proactivity at an overall level does not guarantee, based on workload patterns, and deployment schedules, that resources are sufficient throughout all times of the day and week.

Overall, given the size of the city, the resources available to the department – particularly the number and types of specialized units – the Lewisville Police Department should generally target an overall proactivity level of at least 40% as an effective benchmark of patrol coverage.

(2) Patrol Unit Staffing and Net Availability

Before determining availability and staffing needs, it is important to first review the current patrol staffing levels and deployment schedules.

The Lewisville Police Department follows a 12-hour shift configuration that assigns personnel to four watches on a fixed workday schedule, as follows:

Patrol Shift Configuration
(Current Staffing Levels)²

Watch	Start	End	Week 1							Week 2																
			S	M	T	W	T	F	S	S	M	T	W	T	F	S										
First Watch	0600	1800																								
	0700	1900																								
Second Watch	1800	0600																								
	1900	0700																								
Third Watch	0600	1800																								
	0700	1900																								
Fourth Watch	1800	0600																								
	1900	0700																								

While the table provides the scheduled staffing levels, it does not reflect the numbers that are actually on-duty and available to work on at any given time. Out of the 2,080 hours

² Figures displayed in the table also include those in injury and long-term leave, but exclude permanent vacancies in which the position slot is actually open.

per year that officers are scheduled to work in a year (excluding overtime), a large percentage is not actually spent on-duty and available in the field.

As a result, it is critical to understand the amount of time that officers are on leave – including vacation, sick, injury, military, or any other type of leave – as well as any hours dedicated to on-duty court or training time, and all time spent on administrative tasks such as attending shift briefings. The impact of each of these factors is determined through a combination of calculations made from LPD data and estimates based on the experience of the project team, which are then subtracted from the base number of annual work hours per position. The result represents the total net available hours of patrol officers, or the time in which they are on-duty and available to complete workloads and other activities in the field.

The table below outlines this process in detail, outlining how each contributing factor is calculated:

Factors Used to Calculate Patrol Net Availability

Work Hours Per Year

The total number of scheduled work hours for patrol officers, without factoring in leave, training, or anything else that takes officers away from normal on-duty work. This factor forms the base number from which other availability factors are subtracted from.

Even though a 12-hour shift schedule is followed, work hours are adjusted so that each officer is only working 80 regular (non-overtime) hours biweekly.

Base number: 2,080 scheduled work hours per year

Total Leave Hours (subtracted from total work hours per year)

Includes all types of leave, as well as injuries and military leave – anything that would cause officers that are normally scheduled to work on a specific day to instead not be on duty. As a result, this category excludes on-duty training, administrative time, and on-duty court time.

Calculated from LPD data: 252 hours of leave per year

On-Duty Court Time (subtracted from total work hours per year)

The total number of hours that each officer spends per year attending court while on duty, including transit time. Court attendance while on overtime is not included in the figure.

Without any data recording on-duty court time specifically for patrol officers, the number of hours is estimated based on the experience of the project team.

Estimated: 20 hours of on-duty court time per year

On-Duty Training Time (subtracted from total work hours per year)

The total number of hours spent per year in training that are completed while on-duty and not on overtime. This number was calculated using data provided to the project team by the department.

Calculated from LPD data: 87 hours of on-duty training time per year

Administrative Time (subtracted from total work hours per year)

The total number of hours per year spent completing administrative tasks while on-duty, including briefing, meal breaks, and various other activities.

The number is calculated as an estimate by multiplying 90 minutes of time per shift times the number of shifts actually worked by officers in a year after factoring out the shifts that are not worked as a result of leave being taken.

Estimated: 228 hours of administrative time per year

Total Net Available Hours

After subtracting the previous factors from the total work hours per year, the remaining hours comprise the total *net available hours* for officers – the time in which they are available to work after accounting for all leave, on-duty training, court time, and administrative time.

Net availability can also be expressed as a percentage of the base number of work hours per year.

Calculated by subtracting the previously listed factors from the base number:

1,493 net available hours per officer

The following table summarizes this calculation process, displaying how each net factor contributes to the overall net availability of patrol officers:

Calculation of Patrol Unit Net Availability

Base Annual Work Hours		2,080
Total Leave Hours	–	252
On-Duty Training Hours	–	87
On-Duty Court Time Hours	–	20
Administrative Hours	–	228
Net Available Hours Per Officer	=	1,493
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<i>Number of Officer Positions</i>	<i>x</i>	<i>69</i>
Total Net Available Hours	=	102,996

Overall, officers combine for 102,996 net available hours per year, representing the total time in which they are on duty and able to respond to community-generated incidents and be proactive.

(3) Overview of Call for Service Workload Factors

The previous chapter of the report examined various trends in patrol workload, including variations by time of day and of week, common incident types, as well as a number of other methods. This section advances this analysis, detailing the full extent of the resource demands that these incidents create for responding patrol personnel.

Each call for service represents a certain amount of workload, much of which is not captured within the handling time of the primary unit. Some of these factors can be calculated directly from data provided by the department, while others must be estimated due to limitations in their measurability.

The following table outlines the factors that must be considered in order to capture the full scope of community-generated workload, and provides an explanation of the process used to calculate each factor:

Factors Used to Calculate Total Patrol Workload

Number of Community-Generated Calls for Service

Data obtained from an export of CAD data covering a period of an entire year that has been analyzed and filtered in order to determine the number and characteristics of all community-generated activity handled by patrol officers.

The calculation process used to develop this number has been summarized in previous sections.

*Calculated from LPD data: **41,389 community-generated calls for service***

Primary Unit Handling Time (multiplied by the rate)

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. For each incident, this number is calculated as the difference between 'call cleared' time stamp and the 'unit dispatched' time stamp.

In the experience of the project team, the average handling time is typically between 30 and 42 minutes in agencies where time spent writing reports and transporting/booking prisoners is *not* included within the recorded CAD data time stamps.

*Calculated from LPD data: **56.0 minutes of handling time per call for service***

Number of Backup Unit Responses

The total number of backup unit responses 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.

This number can also be expressed as the *rate* of backup unit responses to calls for service, and is inclusive of any additional backup units beyond the first.

*Calculated from LPD data: **0.68 backup units per call for service***

Backup Unit Handling Time (multiplied by the rate)

The handling time for backup units responding to calls for service is calculated using the same process that was used for primary units, representing the time from the unit being dispatched to the unit clearing the call.

When CAD data lists unique time stamps for each unit on a call (rather than only for the first unit or overall for the call), the handling time is calculated individually. In this case, the CAD data only displayed time stamps for the first unit, and as a result, handling time for backup

units was estimated at a rate of 75% of the primary unit's handling time on each individual call – a normative estimate based on the experience of the project team.

Because calls featuring backup unit responses tend to be more severe, and consequently often require higher workloads for personnel on-scene, the average backup unit handling time is slightly higher than 75% of the overall average for primary units. This is because the 75% is applied to each individual call, rather than the overall average.

*Calculated and estimated from LPD data: **45.9 minutes of handling time per backup unit***

Number of Reports Written

The total number of reports and other assignments relating to calls for service that have been completed by patrol units, estimated at one report written for every three calls for service. This includes any supporting work completed by backup units.

In this case, the number has been calculated from LPD data. 7,137 reports were linked to community-generated calls for service based on their incident number, which corresponds to approximately 0.17 reports per call.

*Estimated/calculated from LPD data: **0.17 reports written per call for service***

Report Writing Time (multiplied by the report writing rate)

The average amount of time it takes to complete a report or other assignment in relation to a call for service. Without any data detailing this specifically, report writing time must be estimated based on the experience of the project team. It is assumed that 45 minutes are spent per written report, including the time spent by backup units on supporting work assignments.

*Estimated: **45 minutes per report***

Total Workload Per Call for Service

The total time involved in handling a community-generated call for service, including the factors calculated for primary and backup unit handling time, reporting writing time, and jail transport/booking time.

The product of multiplying this value by the calls for service total at each hour and day of the week is the number of hours of community-generated workload handled by patrol units – equating to approximately 65,537 total hours over the course of calendar year 2018.

*Calculated from previously listed factors: **95.0 total minutes of workload per call for service***

Each of the factors summarized in this section contribute to the overall picture of patrol workload – the total number of hours required for patrol units to handle community-generated calls for service, including primary and backup unit handling times, report writing time, and jail transport time.

These factors are summarized in the following table:

Summary of CFS Workload Factors

	Value	%
Total Number of Calls for Service	41,389	
Avg. Primary Unit Handling Time (min.)	56.0	59%
Backup Units Per CFS	0.68	
Avg. Backup Unit Handling Time (min.)	45.9	33%
Reports Written Per CFS	0.17	
Time Per Report (min.)	45.0	8%
Avg. Workload Per Call (min.)	95.0	
Total Workload Hours	65,537	

Overall, each call represents an average workload of 95.0 minutes, including all time spent by the primary unit handling the call, the time spent by any backup units attached to the call, as well as any reports or other assignments completed in relation to the incident.

(4) Calculation of Overall Patrol Proactivity

Using the results of the analysis of both patrol workloads and staff availability, it is now possible to determine the remaining time in which patrol units can function proactively. The result can then function as a barometer from which to gauge the capacity of current resources to handle call workload demands, given objectives for meeting a certain service level.

The following table details the calculation process used by the project team to determine overall proactivity levels – the proportion of time that patrol officers have available outside of handling community-generated workloads:

Calculation of Overall Patrol Proactivity

Total Patrol Net Available Hours		102,996
Total Patrol Workload Hours	-	65,537
Resulting # of Uncommitted Hours	=	28,503
<i>Divided by total net available hours</i>	<i>÷</i>	102,996
Overall Proactivity Level	=	36.4%

Overall, 36.4% of patrol unit net availability time is remaining after accounting for community generated workloads. This is below the 40% threshold for adequate proactive time in a medium-sized department, and at just over 35% proactivity, the uncommitted time is not consistently available. Moreover, there are often periods where officers are going from call to call with some low-priority calls holding in queue.

The following chart shows this analysis at a more detailed level, providing proactivity levels in four-hour blocks throughout the week:

Proactivity by Hour and Weekday

Time	# Units	S	M	T	W	Th	F	Sa	Overall
2am-6am	14.2	64%	76%	75%	76%	76%	77%	71%	73%
6am-10am	13.1	58%	44%	48%	46%	46%	49%	59%	50%
10am-2pm	13.1	31%	28%	28%	33%	34%	34%	29%	31%
2pm-6pm	13.1	28%	18%	19%	17%	27%	29%	27%	24%
6pm-10pm	14.4	18%	-4%	-7%	-1%	10%	10%	25%	8%
10pm-2am	14.4	35%	30%	42%	30%	36%	33%	22%	32%
Overall	13.6	39%	34%	34%	33%	38%	38%	39%	36%

The lower proactivity during the afternoon and evening hours is as significant of a finding as the low proactivity at an overall level. From 6:00PM to 10:00PM proactivity averages just 2%, indicating that resources are vastly insufficient to handle the incoming calls. Consequently, it is likely a common occurrence for calls to queue during these times. While this is a preliminary finding, it is strongly indicative of insufficient resources in patrol at a line level.

(5) Analysis of Patrol Self-Initiated Activity

Self-initiated incidents, which include traffic stops, proactive area checks, and other common types of activity, are generated by officers during uncommitted (proactive) time. As discussed in earlier sections, the project team separated out these incidents from those that were community-generated.

(5.1) Self-Initiated Activity by Hour and Weekday

The following table provides patrol self-initiated activity by hour and weekday:

Hour	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Total
12am	191	157	114	117	125	158	187	1,049
1am	155	128	86	91	98	141	145	844
2am	125	81	75	74	95	86	89	625
3am	116	97	53	71	86	93	114	630
4am	99	102	74	74	76	88	122	635
5am	66	68	54	60	62	69	61	440
6am	53	55	71	79	58	55	60	431
7am	114	105	135	158	108	108	147	875
8am	140	104	110	128	124	130	149	885
9am	135	81	86	101	115	129	149	796
10am	149	79	87	94	106	122	142	779
11am	140	66	99	98	99	119	138	759
12pm	81	75	86	55	61	106	101	565
1pm	80	59	55	60	73	66	115	508
2pm	69	58	60	52	64	73	78	454
3pm	58	64	75	89	79	85	83	533
4pm	69	95	72	101	89	70	91	587
5pm	73	67	63	68	58	77	82	488
6pm	86	84	54	74	68	83	91	540
7pm	174	98	103	143	106	150	217	991
8pm	199	151	144	173	151	196	268	1,282
9pm	221	133	143	149	170	204	249	1,269
10pm	201	123	122	149	153	214	203	1,165
11pm	177	106	142	125	154	166	204	1,074
Total	2,971	2,236	2,163	2,383	2,378	2,788	3,285	18,204

Self-initiated activity exists in clearly delineated periods, rapidly increasing at 7:00AM and 7:00PM and just as rapidly falling at 5:00AM and 12:00PM. If these trends are viewed in concert with the charts showing available proactive time by hour, the main period of low self-initiated activity closely matches the times with low proactivity. This makes sense –

because there is essentially no available time to conduct proactive policing, the amount of proactive incidents that are generated is significantly diminished.

(5.2) Most Common Types of Self-Initiated Activity

The following table provides the most common incident types assigned to self-initiated activity:

Most Common Types of Self-Initiated Incidents

Incident Type	# CFS	HT	12a	4a	8a	12p	4p	8p
TRAFFIC STOP	9,066	63.6						
FOLLOW UP	2,050	75.6						
SUSPICIOUS CIRCUM	1,796	56.7						
DISABLED VEHICLE	585	35.8						
WELFARE CONCERN	530	56.6						
ASSIST	494	51.4						
TRAFFIC HAZARD	477	34.8						
PARKING VIOLATION	409	54.1						
BUSINESS WATCH	390	19.3						
CITY ORDINANCE	243	46.5						
All Other Types	2,164	71.4						
Total	18,204	61.6						

Traffic stops are by common the most common type of self-initiated activity, although it is somewhat unusual that they are conducted primarily within the 7:00PM to 1:00AM window. This could potentially be explained by the fact that there is virtually no time available to conduct proactive policing given current staffing constraints.

3. Patrol Staffing Levels Required to Meet Service Level Objectives

To determine staffing needs, it is also important to consider the number of vacancies that currently exist, as well as the rate of turnover. An agency will never be fully staffed, as there will always be vacancies occurring as a result of retirement, termination, and other factors. When these events occur, it takes a significant amount of time to recruit a new position, complete the hiring process, run an academy, and complete the FTO program

before the individual becomes an on-duty officer. Given this consideration, agencies must always hire above the number needed to provide a targeted level of service.

The amount of ‘buffer’ that an agency requires should be based on the historical rate of attrition within patrol. Attrition can take many forms – if it is assumed that the majority of vacancies are carried in patrol staffing, a vacancy at the officer level in any other area of the organization would consequently remove one officer from regular patrol duties. Likewise, promotions would have the same effect, in that they create an open position slot in patrol. Not included, however, are positions that become vacant while the individual is still in the academy or FTO program, and they are not counted in our analysis as being part of ‘actual’ patrol staffing.

Given these considerations, an additional 6.1% authorized (budgeted) positions should be added on top of the actual number currently filled (actual) positions in order to maintain the targeted proactivity level. This is based on the average rate of sworn attrition over the past three years, and the percentage of vacancies carried by patrol. This is done to accurately model the rate at which personnel are drawn out of patrol, either because they were reassigned or no longer work in the agency.

After accounting for the 6.1% additional positions in patrol, the resulting figure can then be rounded to the nearest whole number, assuming that positions cannot be added fractionally. It is worth noting that the number of officers needed without turnover is fractional, as it is an intermediate step in the calculation process.

These calculations are shown in the following table:

Calculation of Current Patrol Officer Staffing Needs

Category	Value
Net Available Work Hours Per Officer	1,493
Total Workload Hours	65,537
Proactivity Target	40.0%
Turnover	6.1%
Patrol FTEs Needed	78

LPD currently has 75 officer positions authorized in patrol, and as a result, three additional authorized positions are required to meet a proactivity level of 40% overall. In essence, the main reason why proactivity levels are so low now is due to the number of vacancies being unusually high. Even though attrition is only occurring at a rate of 6.1% per year – after accounting for all resource draws away from patrol – the number of vacancies is nearly double what would be expected.

Recommendation:

Increase the number of patrol officer positions allocated to patrol by 3 positions, for a total of 78 authorized, in order to meet current service needs.

4. Account for Growth in Determining Patrol Staffing Needs

As detailed in the projections section of the report, calls for service are expected to increase moderately over the next decade as growth and development continue to occur in Lewisville. This includes the annexation of the Castle Hills development, although a significant portion of the workload that area involves is already handled by the Lewisville Police Department, which functions as the current primary law enforcement service provider.

The following details how the increasing number of calls for service handled by the department will impact patrol workload overall, factoring in backup unit responses and report writing workloads:

Projected 10YR Growth in Patrol Workload

	2018	2024	2029
Total Number of Calls for Service	41,389	45,256	48,754
Avg. Primary Unit Handling Time (min.)	56.0	56.0	56.0
Backup Units Per CFS	0.68	0.68	0.68
Avg. Backup Unit Handling Time (min.)	45.9	45.9	45.9
Reports Written Per CFS	0.17	0.17	0.17
Time Per Report (min.)	45.0	45.0	45.0
Avg. Workload Per Call (min.)	95.0	95.1	95.1
Total Workload Hours	65,537	71,725	77,269

In turn, the increasing workload will affect the number of hours that need to be staffed to meet the 40% threshold for adequate proactive time, as detailed in the following table:

Projected 10YR Staffing Needs in Patrol

	2018	2024	2029
Net Available Work Hours Per Officer	1,493	1,493	1,493
Total Workload Hours	65,537	71,725	77,269
Proactivity Target	40.0%	40.0%	40.0%
Turnover	6.1%	6.1%	6.1%
Patrol Units Needed	78	85	92
+/- Change	+3	+7	+7

In order to keep pace with growth over the next decade and provide patrol services with at a proactivity level of 40%, seven additional positions are required in 2024 and again in 2029, in addition to the one authorized position needed now.

Recommendations:

By 2024, add another 7 authorized officer positions to Patrol in order to provide the same level of service given projected increase to service needs, for a total of 85 authorized officer positions in patrol.

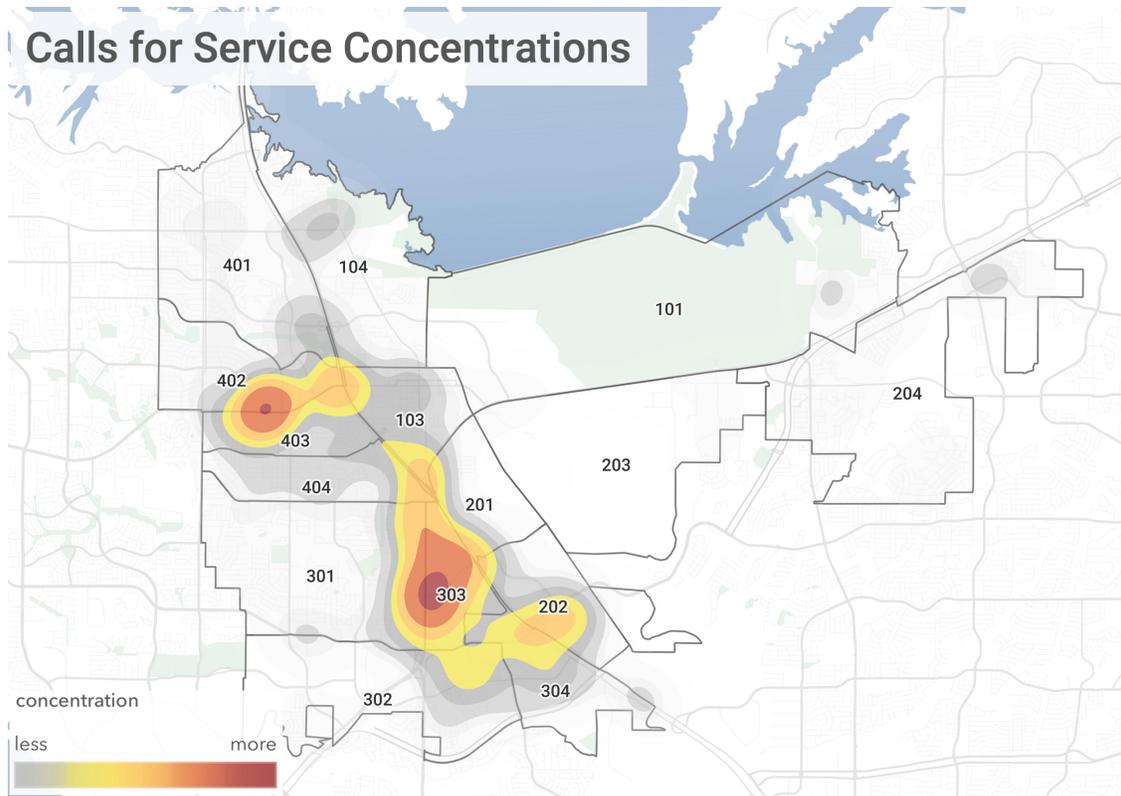
By 2029, add another 7 authorized officer positions to Patrol in order to provide the same level of service given projected increase to service needs, for a total of 92 authorized officer positions in patrol.

5. Analysis of Alternatives for Geographic Deployment

The following sections present analysis on the effectiveness of the current zone and district structure, as well as alternatives for deploying patrol personnel in a way that equalizes workload and facilitates community policing.

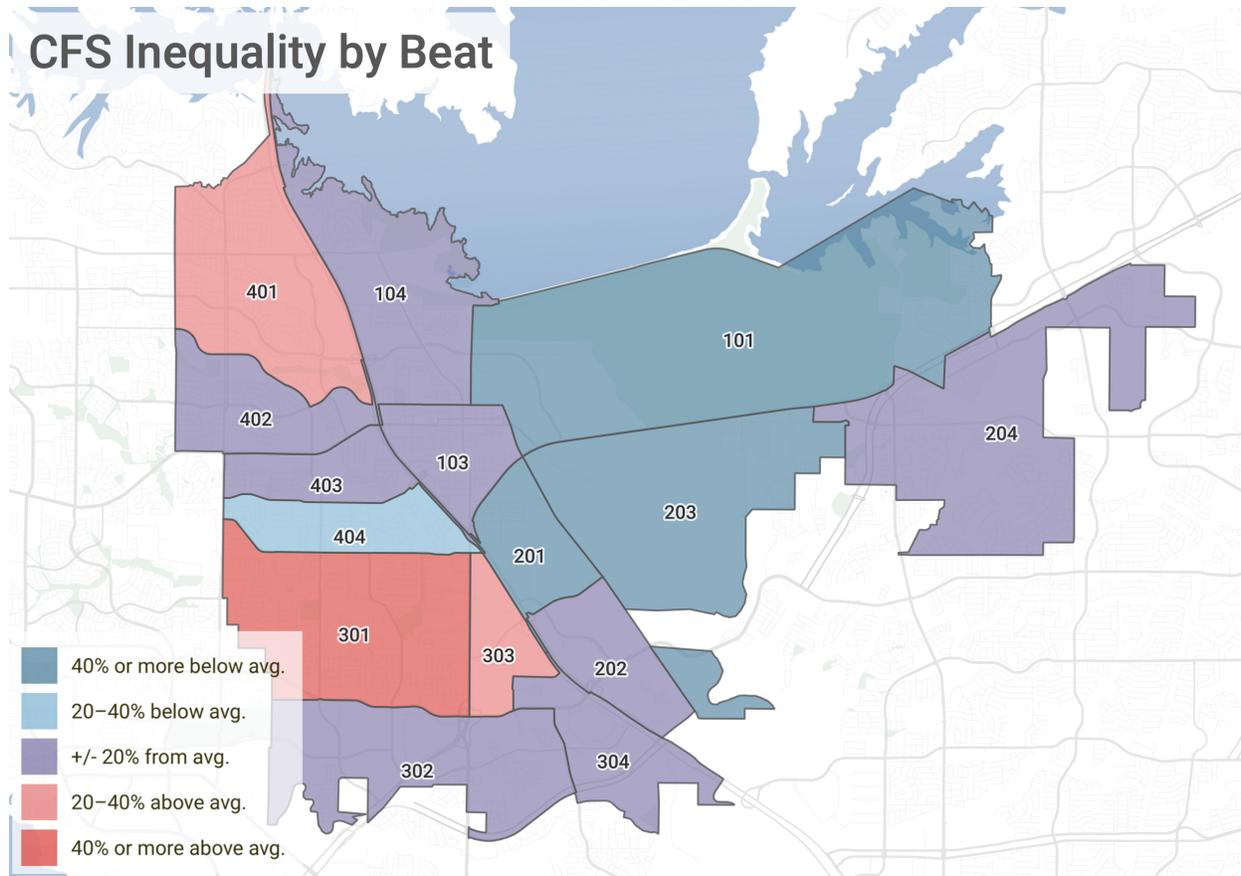
(1) Variation in Calls for Service by Patrol Area

The process starts with examining geospatial hotspots of calls for service to better understand how workload is distributed throughout the service area. The following map examine this, and shows that calls for service are particularly concentrated in a few key areas of the city:



The most significant call activity hotspot, anchored within Beat 303, includes a number of multi-family housing developments, as well as a number of commercial establishments surrounding I-35E.

The following map provides a visualization of inequality in the calls for service handled by each patrol area by shading beats according to whether their call totals are below average, about average, or above average:



While many zones are around the average, almost as many have call workloads that are either far less or significantly more than the average. These findings are also shown in the following table:

Variation in Calls for Service by Patrol Zone

District	Beat	CFS	+/- % Avg.
District 1	101	1,219	-56%
	103	3,103	12%
	104	2,884	5%
District 2	201	1,434	-48%
	202	2,546	-8%
	203	876	-68%
	204	2,519	-9%

District	Beat	CFS	+/-% Avg.
District 3	301	5,130	86%
	302	3,272	19%
	303	3,808	38%
	304	3,166	15%
District 4	401	3,321	20%
	402	3,250	18%
	403	2,794	1%
	404	2,066	-25%
Average		2,759	-

As expected, 101 and 203, which do not have patrol officers directly assigned to them, have call totals that are significantly below average. Overall, 4 of 15 beats have call totals that are severely (at least 40%) above or below the average. 7 of 15 beats – nearly half – are 20-40% above or below the average.

Even if the beats and their call volumes are aggregated together by district, significant variations remain:

Variation in Calls for Service by District

District	CFS	+/-% Avg.
District 1	7,207	-14%
District 2	4,856	-42%
District 3	12,210	45%
District 4	9,364	11%
Average	8,409	-

The findings of this analysis indicate that there is extensive variation in workload by patrol area. It is important, however, to also take these findings within the context that some areas of the city are growing extensively. The eastern region of the city has significant development occurring, and is projected to add a number of residents, jobs, and commercial square footage over the coming years. Further analysis will evaluate opportunities to better balance workload and resources among the patrol districts and zones.

(2) Impact of Growth on Geographic Deployment

The growth taking place within the City of Lewisville, as well as the planned annexation of the Castle Hills subdivision, has impacts on patrol service needs beyond the overall level.

Recent and projected activity is not evenly distributed across the city, and certain patrol beats will be particularly affected by future growth on call for service workloads. The Castle Hills area in particular, while already a part of the extraterritorial jurisdiction and response area of the Lewisville Police Department, is expected to add workload for regular (i.e., non-overtime) patrol officers. To address these issues, the department should redesign the zone structure to ensure that there is capacity in the eastern portion of the city to accommodate increasing workload.

(3) Process Used to Redesign the Zone Structure

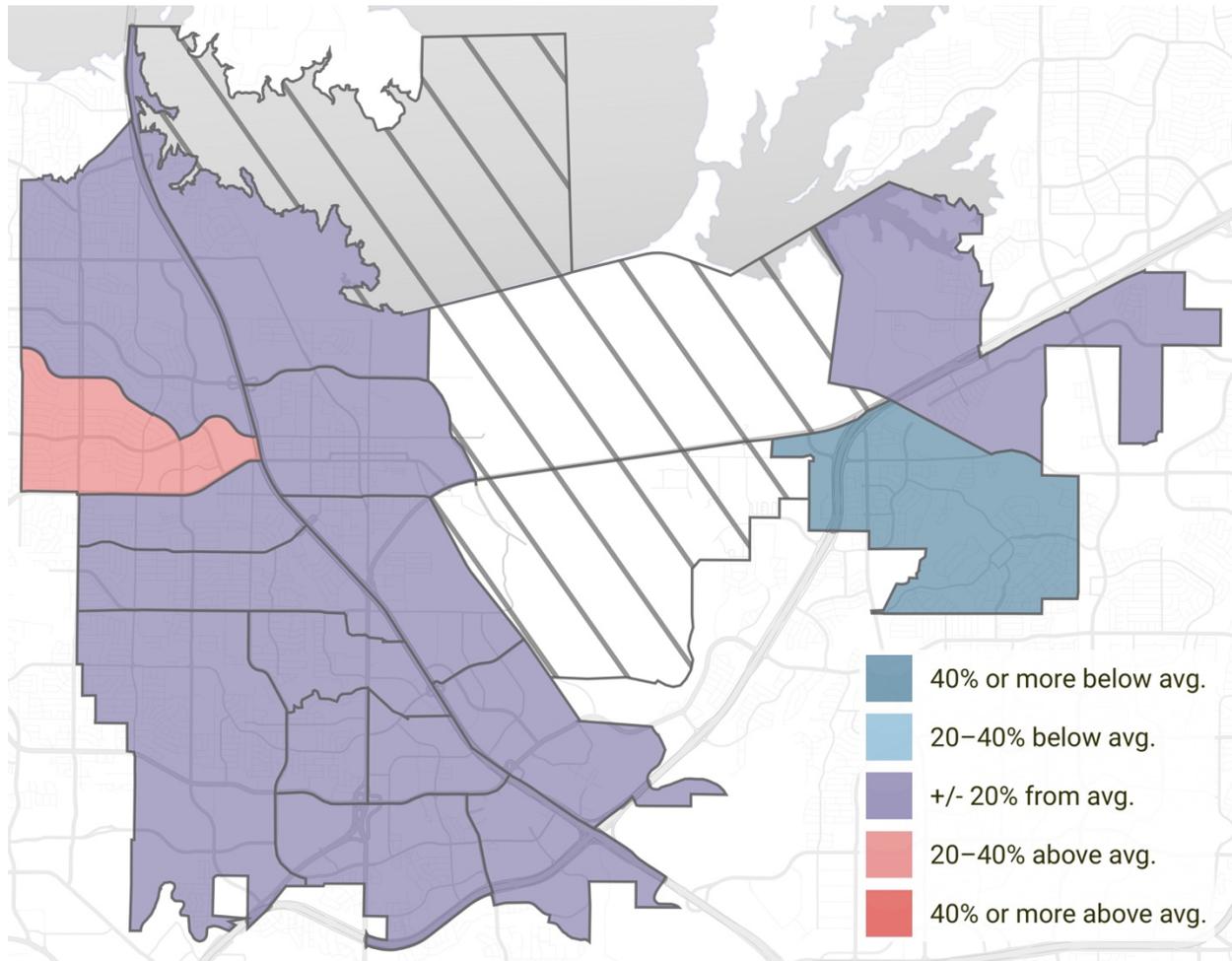
The project team began the process by determining the number of zones that can be consistently staffed during the daytime and evening hours without the use of overtime, after factoring in leave, training, and court time. This is critical, because even if workload is fully equalized among all zones, if an officer has to cover a second beat because it is unstaffed, then that officer is essentially responsible for twice the workload. Operationally, the negative effects of this are the same as a zone structure using borders that do not equalize the workload. Covering two zones intermittently also defeats the purpose of having small, localized zones, where officers are able to develop an area of geographic responsibility where they are familiar with its public safety issues, people, and community groups.

Even with a 12-hour shift schedule, current staffing supports no more than around 16 zones. This excludes any areas that are designated to be unstaffed, such as Lake Lewisville, or those that are relatively unpopulated, and are reserved to monitor any future growth and development.

Three zones were created that are not intended to be staffed, including one that comprises the portion of Lake Lewisville that is within the city's boundaries. The unstaffed zones are represented with gray diagonal lines, and do not contribute toward the average call for service totals.

The following map details the effects of the alternative zone structure on call for service inequality, shading zones on whether the number of calls for service they contain is below the average, around the average (relatively equalized), or above the average. The three unstaffed zones are represented with gray diagonal lines, and do not contribute toward the average call for service totals.

Call for Service Inequality Under the Proposed Zone Structure



Only two zones have call totals that are moderately outside of the average. One of these zones, located in the Castle Hills area, is designed to accommodate future growth and development, which should over time bring the workload more in line with other zones.

The alternative structure should be reviewed and revised based on feedback from multiple levels of the organization, including from line patrol officers.

Recommendation:

After a process of review and revisions, implement a revised geographic deployment structure with 16 staffed zones and 3 unstaffed zones.

6. Patrol Scheduling and Redeployment Opportunities

As shown in the analysis, the current number of vacancies does not provide for effective patrol coverage at either an overall level or by hour of the day. As this is addressed over

time, as well as the addition of three new positions in patrol, proactivity should rise at an overall level to around 40%. However, this does not necessarily mean that many of the issues with low proactivity levels at specific times of the day will be fixed. Across many hours, the issues are particularly severe, with proactivity dropping to negative values on some days during the evening hours, as shown in the following table:

Proactivity by Hour and Weekday

Time	# Units	S	M	T	W	Th	F	Sa	Overall
2am–6am	14.2	64%	76%	75%	76%	76%	77%	71%	73%
6am–10am	13.1	58%	44%	48%	46%	46%	49%	59%	50%
10am–2pm	13.1	31%	28%	28%	33%	34%	34%	29%	31%
2pm–6pm	13.1	28%	18%	19%	17%	27%	29%	27%	24%
6pm–10pm	14.4	18%	-4%	-7%	-1%	10%	10%	25%	8%
10pm–2am	14.4	35%	30%	42%	30%	36%	33%	22%	32%
Overall	13.6	39%	34%	34%	33%	38%	38%	39%	36%

While total patrol staffing provides the opportunity for patrol proactivity to be high at an overall level, it is how they are deployed that governs what the proactivity levels are at specific times of the day. An effective patrol schedule will match resources efficiently against when and where they are most needed, deploying additional resources during the most active times and fewer resources during the least active times. Of course, even during the less active hours in the late night and early morning, a minimum level still needs to be reached to provide for timely responses, officer safety, and critical incident response capabilities.

Nonetheless, the schedule should ideally be able to maximize how officers are deployed in reference to periods of higher and lower workload levels. For the purposes of this analysis, the focus will be on critical levels of proactivity. While 35-40% can be used as a benchmark for proactivity at an overall level, it is not always attainable at all hours of the day given current resources. **Instead, this analysis will focus on hours with proactivity levels of 15% or below**, indicating times where there are so few officers on duty that call will often begin to queue, potentially impacting response times.

The following chart provides the same statistics as the previous chart, but using the proactivity threshold of 15% to highlight the hours that have critically inadequate staffing levels:

Current Schedule: Hours with Critically Low Proactivity

Time	S	M	T	W	Th	F	Sa	Ovr.
0200 - 0600	64%	76%	75%	76%	76%	77%	71%	73%
0600 - 1000	58%	44%	48%	46%	46%	49%	59%	50%
1000 - 1400	31%	28%	28%	33%	34%	34%	29%	31%
1400 - 1800	28%	18%	19%	17%	27%	29%	27%	24%
1800 - 2200	18%	-4%	-7%	-1%	10%	10%	25%	8%
2200 - 0200	35%	30%	42%	30%	36%	33%	22%	32%
Overall								36%

Additionally, a number of hours in the 1400-1800 hour range at in the high teens, staying between 17% and 19% on Monday, Tuesday, and Wednesday.

The project team examined a number of different adjustments to the schedule to improve upon these issues. Principally, two options were reviewed:

- Optimization of the current 12-hour schedule.
- A 10-hour schedule configuration.

The first of these is an optimized version of the four-watch 12-hour shift schedule that is used currently. To increase proactivity at key times of the day, a number of changes were made.

Currently, all watches are split into two teams, each of which with start times that are staggered by an hour. Given that the late night and early morning hours require significantly fewer officers to be on duty, the A teams on the Second Watch and Third Watch were converted to be more of a ‘power shift’, starting at 1600 (instead of 1800) and overlapping with both the First Watch and the Second/Fourth Watch B teams. The number of officers by squad were also changed significantly, as shown in the following table:

12-Hour Optimized Schedule: Watch Start Times and Staffing

Watch	Team	Start	End	# Officers
First	A	0600	1800	7
	B	0700	1900	8
Second	A	1600	0400	12
	B	1900	0700	7
Third	A	0600	1800	8
	B	0700	1900	7
Fourth	A	1600	0400	13
	B	1900	0700	7

Clearly, the converted formed power shifts have been augmented with by far the most staff of any shift. A minimum of 14 was set for the combined A and B teams of each watch based on net availability, ensuring that at least 10 officers can be reliably be on duty each shift after accounting for factors such a leave, training, court time, etc.

The schedule significantly improved upon proactivity levels at critical times of the day, eliminating negative values altogether:

12-Hour Optimized Schedule: Effects on Proactivity Levels

Time	S	M	T	W	Th	F	Sa	Ovr.
0200 - 0600	39%	57%	64%	64%	67%	65%	53%	64%
0600 - 1000	52%	39%	44%	41%	40%	43%	53%	45%
1000 - 1400	22%	23%	23%	28%	27%	25%	19%	24%
1400 - 1800	38%	35%	35%	34%	42%	38%	36%	41%
1800 - 2200	18%	13%	11%	16%	19%	10%	25%	16%
2200 - 0200	35%	37%	51%	41%	44%	35%	22%	38%
Overall								36%

Also of note are the effects on the 1400-1800 time period, which have improved to the range of mid-30%s to low-40%s. The drawback of the schedule are the relatively low staffing levels in a two-hour window from 0400-0600. However, incidents are far less

frequent during this time period, and proactivity levels remain well above 50% after the change.

Rotating weekends off may also augment the department's ability to recruit new officers, representing a competitive advantage against departments that reserve weekend days off entirely for seniority-based shift placement. This is particularly common for 12-hour shift schedules, which tend to have rotating days off more often than 8 and 10-hour configurations.

A second schedule was also examined, converting all watches to 10-hour shifts. This decreases the number of watches needed down to 0600. A and B teams have been changed to constitute different sets of workdays, rather than staggered hours. Each shift team works 4 days per week, with Thursday as an overlap day.

The following table provides the start times and number of officers assigned to each shift under the 10-hour alternative schedule:

10-Hour Alternative Schedule: Watch Start Times and Staffing

Watch	Team	Start	End	# Officers
First	A	0600	1600	12
	B	0600	1600	13
Second	A	1400	0000	15
	B	1500	0100	15
Third	A	2100	0700	7
	B	2100	0700	7

The overlap day is inherently a weakness of any 10-hour scheduling configuration, as it requires more than enough resources being deployed on that day at the cost of those resources being deployed at other times. The same is true for overlapping hours where two shifts are needed, which concentrate the augmented staffing over a relatively narrow period of time. This is reflected in the results of the schedule on proactivity levels, which demonstrate a number of critical issues at different times:

10-Hour Alternative Schedule: Effects on Proactivity Levels

Time	S	M	T	W	Th	F	Sa	Ovr.
0200 - 0600	-1%	32%	50%	47%	45%	50%	18%	37%
0600 - 1000	50%	40%	37%	34%	41%	39%	50%	47%
1000 - 1400	11%	18%	5%	12%	24%	15%	8%	16%
1400 - 1800	24%	39%	31%	30%	40%	27%	24%	40%
1800 - 2200	1%	12%	-4%	1%	16%	-10%	11%	10%
2200 - 0200	9%	27%	34%	9%	15%	16%	-3%	32%
Overall								34%

In effect, creating a 10-hour schedule that is as efficient at allocating resources as a 12-hour schedule requires the workload to be distributed more evenly by time of day. In Lewisville, the period of elevated workload is longer than 10 hours, meaning that one shift cannot cover all of the hours where workload is much greater.

Overall, it is difficult to make an argument that the 10-hour shift schedule allocates resources in a way that would improve proactivity levels. Given workload patterns in Lewisville, higher staffing levels would be needed to make the 10-hour schedule work in place of the 12-hour configuration.

Recommendation: After consulting with patrol supervisors and officers, implement an optimized version of the 12-hour shift schedule with rotating weekends off.

7. Patrol First-Line Supervision

Ensuring that patrol has adequate supervision is critical to the effectiveness of patrol operations in the field. Staffing needs for patrol sergeants can be measured by span of control ratios, or the average number of officers assigned to sergeants. Many of the key drivers of sergeant workloads include report review, use of force and pursuit review, and performance evaluations, scale directly with the number of officers that are assigned to a sergeant. Consequently, the more officers that are assigned per sergeant, the less time that sergeants are able to be out in the field directly supervising officer. In general, no sergeant should supervise more than about 9 officers. These numbers can be modified by the administrative duties that sergeants are required to handle. If sergeants handle more responsibilities with significant workloads than is typically the case, then the span of control that an agency should target for should be lower than normal, ensuring that sergeants supervise fewer officers.

In terms of authorized (budgeted) staffing levels, there are 3 sergeants for every 18 (3x watches) to 23 (1x watch) officers, which falls within the 1:9 benchmark span of control target. Current (filled) staffing levels present a somewhat different story, with ratios that are higher than they would be if all positions were filled:

Patrol Supervisory Spans of Control

	Current (Filled)			Authorized		
	Sgt.	Ofc.	Ratio	Sgt.	Ofc.	Ratio
First Watch	2	13	6.5	3	18	6.0
Second Watch	2	15	7.5	3	18	6.0
Third Watch	2	16	8.0	3	17	5.7
Fourth Watch	2	19	9.5	3	22	7.3

Overall, in terms of authorized staffing levels, there are currently 6.4 officer positions for every sergeant assigned to patrol. This is sufficient, and well below the targeted maximum span of control of 1:9. The department should also consider setting spans of control lower for shifts with a majority of officers with less experience. Because seniority is used to determine team assignments, there are typically significant differences in the experience levels of officers on day and night watches.

The projections analysis demonstrates that as workload could increase by nearly 18%, and will require corresponding increases to be made to patrol officer staffing. In turn, this will affect the need for patrol sergeant positions, as spans of control will increase significantly. The following table shows how many patrol sergeants will need to be added in order to maintain approximately the same span of control that exists today (in terms of authorized staffing levels):

Projected Sergeant Staffing Needs

Year	# Sgt.	+/- Sgt.	# Ofc.	Span of Control
2019	12	–	75	6.3
2024	13	+1	85	6.5
2027	14	+1	92	6.6

By adding an additional sergeant position in 2024 and again in 2029, spans of control will be able to keep pace with the number of officers needed to meet growth demands.

Recommendations:

By 2024, increase the number of sergeant positions authorized in Patrol by 1 in order to maintain current supervisory spans of control.

By 2029, increase the number of sergeant positions authorized in Patrol by 1 in order to maintain current supervisory spans of control.

7. Analysis of Technology Services

Technology Services include Communications and Records services for the Police Department. Communications is responsible for answering all 911 and non-emergency calls and will dispatch appropriate law enforcement, fire, or medical services. The Communications section creates and maintains all NCIC/TCIC records for stolen items and wanted persons as well as overseeing CJIS and NCIC/TCIC certification for all Police Department employees. The Communications section is also responsible for monitoring the fire alarm system for City buildings and facilities as well as monitoring the primary camera feed system and security alarm system for the City.

Records is responsible for inputting and maintaining all Police Department records, reports and citations. Records staff also responds to records requests from other public safety entities as well as all open records requests. The Records staff act as the primary receptionists for the Police Department by answering the general police department phone lines and greeting and assisting all people that walk into the Police Department lobby. Technology Services is overseen by a Manager and supported by a Supervisor in Records and six Supervisors in Communications.

1. Records

Records is comprised of one Supervisor, 5.5 Clerks, and one Open Records Technician. Each of the Clerks are cross-trained and can complete all tasks associated with the unit. The Open Records Technician is the only position that is not cross-trained and focuses on this singular function along with supplementing the Supervisor in their absence.

Until August of 2018, Records did not track workload measures consistently. Historic workload data is limited for Records. The following table shows the monthly workload associated with Records between August 2018 and March 2019.

Records Workload

Workload Activity	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
Arrest Report Processed		305	350	227	281	415	374	323
TCJ's		56	93	43	40	99	68	56
B & Above		85	94	59	73	109	114	96
Class C's		43	57	35	34	55	50	37
Lewisville Warrants		64	70	58	74	57	86	70
Other City Warrants		57	36	32	60	95	56	64
Entered RMS	378	382	293	261		445	374	370
Entered RMS - Juvenile Detention	15	14	22	18		13	10	27
Entered RMS - Citations	5	38	36	22		10	17	35
Public Background Checks	11	15	2	9	21	7	6	10
Other Agency Background Checks	91	64	93	80	54	19	12	16

Workload Activity	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
Crass Reports Completed	255	292	344	288	307	263	247	289
Amended Crash Reports	30	14	28	16	13	20	17	12
Crash Reports Request	371	304	85	193	59	141	100	53
Fax Report Request	116	98	163	102	100	49	65	55
District Attorney Request	5	12	14	18		90	4	4
DPS Request	28	27	28	31		16	20	14
Open Record Requests Completed	149	154	143	118	85	137	112	115
DWI Videos Processed	6	4	3	2		7	3	4
Discoveries Processed	12	2	8	2		10	9	5
Subpoenas Processed	1	1	1	2	1	4	1	2
Expunction Orders Processed	6	4	4			23	1	6

In addition to the most recent workload data, the project team was provided timelines to complete certain tasks within Records. The following table summarizes the time estimates provided by staff to complete specific functions.

Estimate Workload Completion Time Per Task

Task	Time Estimate (in Minutes)
Arrests: Sorting (s) Laserfiche (L), Criminal Histories (CH), Entry in RMS (E)	18
Cash Drawer/Deposit	15
Cash Escrow Deposit	45
Citations: Scan (L) Entry in RMS (E) Court Papers (CP)	10
Crash: CRASH (c), Scan (L), Entry in RMS (E)	10
Detentions: Sorting, Entry in RMS (E), Scan (L)	13
DIC Paperwork	3
Fingerprint Deposit	15
Lexus Nexus Request	60 min/day
Morning Separation of papers	30-90 min/day
Notarize Documents	5
Offense Retention Folders - Laser	3
Tow Slips Entry	5

To maintain an effective and efficient Records operation it is important to utilize cross-trained staff. The LPD Records team is comprised of cross-trained individuals. Each staff member has their specific expertise and focus, but all assist with the public window (assigned one day per week), and can review and upload respective incident and police reports into the records management system (RMS).

In order to determine the staffing needs of Records, the project team calculated the time associated with the current workload levels. Determined the overall time need to complete these primary tasks an applied a net availability factor of 75% to the calculation to

determine staffing needs. The following table outlines the time commitment and staffing needs for Records.

Workload and Staffing Calculation

Workload Activity	Annual Total	Time Per Task (Minutes)	Total Hours
Arrest Report Processed	3,900	18	1,170
Entered RMS	4,291	18	1,287
Entered RMS - Juvenile Detention	204	18	61
Entered RMS - Citations	279	18	84
Public Background Checks	122	45	91
Other Agency Background Checks	644	30	322
Crash Reports Completed	3,428	18	1,028
Amended Crash Reports	225	15	56
Crash Reports Request	1,959	10	327
Fax Report Request	1,122	5	94
District Attorney Request	252	30	126
DPS Request	281	30	141
Open Record Requests Completed	1,520	60	1,520
DWI Videos Processed	50	60	50
Discoveries Processed	82	60	82
Subpoenas Processed	20	60	20
Expunction Orders Processed	88	120	176
Daily Separation of Papers	250	60	250
Daily Counter Deposit	250	15	63
Weekly Escrow Deposit	52	45	39
Total Hours			6,985
<i>Net Availability Hours (75%)</i>			<i>1,560</i>
Staffing Needs			4.5

Based on the average annual workload, a total of 4.5 staff are needed. However, this calculation does not take into account serving the public at the counter nor answering the phones for the police department. Nor does this calculation take into account the scanning tasks that a part time staff member is completing to facilitate the digitization efforts of the LPD. Based on the current workload, the 5.5 Clerks and one Open Records Technician is adequate to complete the current workload.

One issue that may impact the workload of Records is the implementation of a new Records Management System (RMS) software program that should be fully implemented in 2020. Currently, Records reviews a significant number of paper files/reports and requires significant scanning or manually inputting of information into the RMS software. The new RMS system should reduce the amount of paper reports/files and result in a more streamlined approach. At this time, it is unknown how the new RMS system will impact the workload and associated time necessary to complete these tasks. After the new RMS system has been implemented for six months, Records should reassess their processes and the time associated with each task. Depending on the potential

efficiencies gained, assigned duties may need to be evaluated for Records staff, and alternative roles and responsibilities may need to be assigned to staff.

Recommendation: Maintain the Supervisor, 5.5 Clerks, and the Open Records Technician (1), currently authorized for Records. After successful implementation of the new Records Management System, roles and responsibilities of each staff member should be evaluated to ensure that staff are effectively utilized. Reassign duties if necessary.

2. Communications

Communications is responsible for answering emergency and non-emergency phone lines, dispatch calls for service, and coordinate other department responses to incidents. They are responsible for dispatching both the Lewisville Police Department and Fire Department/Emergency Medical Services.

Currently, there are a total of 5 Supervisor, 5 Dispatcher II, 18 Dispatcher I, and 2 Call Taker positions authorized for Communications. Communication staff are assigned to a total of four shifts. Each shift is a 10.5 hour shift and are the following: Days (0630 – 1700 hours); Mids (1030 – 2100 hours); Nights (2030 – 0700 hours); and Swing (1630 – 0300 hours). Currently, a total of six staff are assigned to Days, a total of five staff assigned to Mids, a total of seven staff assigned to Nights, and three staff assigned to Swing. Additionally, Communications utilizes part time staff and light duty staff when available.

All staff are assigned to work on Wednesday. Staff are either assigned to a Sunday – Wednesday or a Wednesday – Saturday work schedule. Wednesdays are utilized for training and meeting days.

Minimum staffing levels for Communications includes four between 0300 and 1100 hours and five from 1100 to 0300 hours. Minimum staffing levels may include the Supervisor. However, it should be noted that the Fire Department may utilize a separate dispatcher if they have staff on light duty, and this individual does not count towards minimum staffing levels, as they only dispatch for the Fire Department. The position allocation for dispatch includes one lead call taker, one dispatcher, and one dedicated to complete primarily administrative tasks such as warrant checks and processing other paperwork, but serves as a backup to the other positions. This approach to delineation of duties by staff is effective and provides dedicated staff in each function. Furthermore, staff rotate their functions throughout their shift so that staff do not get burned out, as some functions may be more stressful than others.

(1) Analysis of Communication Workload and Staffing Needs

The project team analyzed the workload and staffing needs associated with emergency calls, non-emergency calls, and dispatching needs. The following analysis outlines the

workload and associated workload for each respective workload indicator. Staffing needs are provided by each hour of the day, and then summarized at the end of the section by incorporating net availability and turnover into the staffing model.

(1.1) Emergency Calls

The following table shows the average volume of incoming emergency calls by hour and day of the week during 2018.

	Mon	Tue	Wed	Thu	Fri	Sat	Sun
12a	4.6	3.6	3.9	3.6	4.2	6.1	7.5
1a	3.9	2.2	2.7	3.0	3.0	6.1	5.9
2a	2.7	2.9	2.8	2.3	2.8	4.9	4.7
3a	2.4	2.1	2.0	2.3	2.4	4.1	4.1
4a	2.2	1.4	1.7	1.5	1.8	2.8	3.1
5a	2.9	2.2	2.0	3.4	2.5	2.5	2.8
6a	3.9	4.2	3.7	4.4	3.8	3.2	3.1
7a	6.6	6.3	6.8	6.3	6.2	4.6	2.7
8a	6.6	7.1	7.2	6.4	6.3	5.9	4.0
9a	6.5	7.0	7.9	7.1	7.5	7.8	5.2
10a	7.1	8.2	7.4	7.1	7.8	8.2	5.7
11a	8.4	8.8	8.7	7.7	8.5	9.3	6.3
12p	9.1	8.5	8.8	8.7	9.0	9.1	8.2
1p	8.2	9.6	9.7	10.5	9.2	9.4	8.2
2p	9.4	9.5	9.6	10.0	9.9	10.7	8.7
3p	10.5	9.1	10.5	10.7	10.8	9.3	8.8
4p	11.0	10.7	11.7	11.3	13.5	9.9	8.3
5p	11.8	12.2	10.7	13.7	10.2	8.7	9.7
6p	10.8	11.1	10.9	10.9	12.0	9.9	9.0
7p	9.0	8.4	8.7	10.7	10.9	9.7	9.2
8p	8.5	8.3	7.8	8.3	10.5	9.9	7.9
9p	6.9	7.4	8.0	8.7	10.0	9.9	7.8
10p	6.1	7.0	6.8	7.0	9.5	9.4	6.4
11p	5.1	5.0	5.0	4.9	8.9	8.9	6.0

Based on this data, a formula known as the Erlang model is used to calculate the number of dedicated call-takers which will be required to ensure that a desired level of service can be met. The following table illustrates the variables selected for this calculation.

Average call duration	134 seconds
Target answer time	10 seconds
Required service level	90%

Based on these factors, the following table shows the number of emergency call-taking staff which should be present at each hour of the day to ensure the desired level of service is met.

	Mon	Tue	Wed	Thu	Fri	Sat	Sun
12a	2	2	2	2	2	2	2
1a	2	1	1	2	2	2	2
2a	1	2	1	1	1	2	2
3a	1	1	1	1	1	2	2
4a	1	1	1	1	1	1	2
5a	2	1	1	2	1	1	1
6a	2	2	2	2	2	2	2
7a	2	2	2	2	2	2	1
8a	2	2	2	2	2	2	2
9a	2	2	2	2	2	2	2
10a	2	2	2	2	2	2	2
11a	2	2	2	2	2	2	2
12p	2	2	2	2	2	2	2
1p	2	2	2	2	2	2	2
2p	2	2	2	2	2	2	2
3p	2	2	2	2	2	2	2
4p	2	2	2	2	2	2	2
5p	2	2	2	2	2	2	2
6p	2	2	2	2	2	2	2
7p	2	2	2	2	2	2	2
8p	2	2	2	2	2	2	2
9p	2	2	2	2	2	2	2
10p	2	2	2	2	2	2	2
11p	2	2	2	2	2	2	2

In section (2), these figures are added to the staffing needs for dispatch and non-emergency call workload to determine the agency's total hourly staffing needs.

(1.2) Dispatch and Non-Emergency Calls

The following sections calculate the number of staff needed at each hour of the day in order to handle dispatch workload and non-emergency phone calls without overloading staff.

(1.3) Dispatch

The following table shows the average number of CAD incidents per hour for each day of the week during 2018.

	Mon	Tue	Wed	Thu	Fri	Sat	Sun
12a	10.6	10.5	11.0	10.9	11.5	14.6	14.9
1a	10.5	8.8	9.7	10.3	11.4	13.6	12.6
2a	9.4	9.0	9.2	9.4	9.9	11.5	11.8
3a	8.4	8.5	8.2	9.0	9.4	10.2	10.8
4a	6.6	6.2	6.4	6.6	6.9	7.7	8.0
5a	6.2	5.5	5.8	5.4	5.8	6.1	6.1
6a	9.0	9.5	10.0	9.4	7.6	6.9	6.3
7a	15.4	14.8	16.8	14.7	13.1	10.8	9.2
8a	21.8	19.0	18.9	16.5	18.3	13.0	11.1
9a	16.7	17.8	17.2	16.1	16.5	15.3	11.7
10a	16.2	17.8	18.3	16.7	16.6	14.7	14.0
11a	15.6	19.9	19.3	16.9	16.6	15.2	14.1
12p	18.3	20.9	20.1	17.7	17.6	14.9	14.7
1p	17.5	20.6	18.0	18.9	18.0	16.2	13.7
2p	18.8	19.8	18.7	19.1	18.4	15.9	15.1
3p	16.5	17.1	18.3	17.8	18.1	15.3	13.3
4p	15.4	15.9	16.3	15.3	15.9	14.4	12.2
5p	15.2	15.3	14.6	16.2	12.9	11.8	11.8
6p	14.2	12.9	13.7	14.6	15.1	13.5	11.7
7p	12.8	13.3	13.9	15.1	15.4	15.3	12.8
8p	13.5	12.8	14.2	13.2	15.9	16.4	13.0
9p	12.5	12.8	13.8	14.4	15.9	18.0	13.4
10p	12.1	12.5	13.8	13.7	17.3	16.4	13.2
11p	11.1	11.9	12.5	12.4	16.0	17.5	12.4

To determine staffing needs for this volume of workload, the following two key variables are used:

- Average dispatch time per call: This includes time on the radio with responding units, as well as time spent processing the call in the CAD system. From experience with hundreds of fire, law enforcement, and dispatch agencies, we know that this typically averages 3 minutes.
- Target occupancy rate: This is the percentage of time that staff should be engaged with an active call, as opposed to “refresh time” when staff can make outgoing calls and prepare themselves for the next incident. An ideal rate is about 50%. Occupancy rates higher than this can begin to create burnout among staff.

Average dispatch time per call	3 minutes
Target Occupancy Rate	50%

Based on these factors, the following table shows the number of staff needed to process CAD calls and the dispatch workload at each hour of the day.

	Mon	Tue	Wed	Thu	Fri	Sat	Sun
12a	1.06	1.05	1.10	1.09	1.15	1.46	1.49
1a	1.05	0.88	0.97	1.03	1.14	1.36	1.26
2a	0.94	0.90	0.92	0.94	0.99	1.15	1.18
3a	0.84	0.85	0.82	0.90	0.94	1.02	1.08
4a	0.66	0.62	0.64	0.66	0.69	0.77	0.80
5a	0.62	0.55	0.58	0.54	0.58	0.61	0.61
6a	0.90	0.95	1.00	0.94	0.76	0.69	0.63
7a	1.54	1.48	1.68	1.47	1.31	1.08	0.92
8a	2.18	1.90	1.89	1.65	1.83	1.30	1.11
9a	1.67	1.78	1.72	1.61	1.65	1.53	1.17
10a	1.62	1.78	1.83	1.67	1.66	1.47	1.40
11a	1.56	1.99	1.93	1.69	1.66	1.52	1.41
12p	1.83	2.09	2.01	1.77	1.76	1.49	1.47
1p	1.75	2.06	1.80	1.89	1.80	1.62	1.37
2p	1.88	1.98	1.87	1.91	1.84	1.59	1.51
3p	1.65	1.71	1.83	1.78	1.81	1.53	1.33
4p	1.54	1.59	1.63	1.53	1.59	1.44	1.22
5p	1.52	1.53	1.46	1.62	1.29	1.18	1.18
6p	1.42	1.29	1.37	1.46	1.51	1.35	1.17
7p	1.28	1.33	1.39	1.51	1.54	1.53	1.28
8p	1.35	1.28	1.42	1.32	1.59	1.64	1.30
9p	1.25	1.28	1.38	1.44	1.59	1.80	1.34
10p	1.21	1.25	1.38	1.37	1.73	1.64	1.32
11p	1.11	1.19	1.25	1.24	1.60	1.75	1.24

These number are combined with non-emergency phone call staffing needs later in this section to determine the total number of hour-by-hour staff needed for functions other than emergency call-taking.

(1.4) Non-Emergency Calls

The following table shows the average number of incoming non-emergency calls to the agency for each day of the week and hour of the day during 2018.

	Mon	Tue	Wed	Thu	Fri	Sat	Sun
12a	8.9	8.6	11.2	9.0	9.4	11.8	12.8
1a	9.1	7.6	8.7	8.3	9.5	11.7	10.9
2a	7.2	7.4	8.5	8.5	8.5	10.5	10.5
3a	6.8	7.2	6.7	6.8	8.2	10.0	8.7
4a	6.3	5.6	5.2	6.5	6.3	6.3	8.6
5a	5.2	5.5	5.8	5.6	5.8	6.0	6.7
6a	7.3	8.7	8.6	8.0	8.2	7.5	5.9
7a	12.5	12.7	14.2	13.3	13.2	10.7	8.6
8a	14.9	16.2	16.6	15.1	15.5	11.5	9.7
9a	17.8	17.8	17.4	16.2	17.1	15.5	11.4
10a	18.1	17.0	18.3	17.8	16.9	15.3	11.4
11a	17.5	17.5	17.5	17.0	23.0	15.2	13.5
12p	18.2	18.1	17.4	16.9	26.8	15.8	13.5
1p	17.9	18.8	18.0	17.6	27.5	16.4	13.8
2p	18.4	19.1	19.9	20.0	27.9	16.4	14.4
3p	19.4	19.7	20.5	19.8	27.2	16.5	14.2
4p	18.8	17.8	20.2	19.4	26.1	16.7	14.5
5p	22.1	20.2	22.8	22.7	21.0	14.6	13.8
6p	18.2	17.9	20.2	20.6	18.0	15.4	14.9
7p	15.5	15.7	17.4	19.2	17.5	14.3	12.9
8p	13.5	13.9	16.2	15.9	17.0	13.8	12.3
9p	12.9	14.2	13.6	14.0	15.5	14.8	11.7
10p	12.7	13.1	14.0	13.0	15.1	13.4	11.4
11p	10.1	11.0	12.1	11.5	13.6	13.6	9.2

The target occupancy rate of 50% is used, along with the average duration of these non-emergency calls (94 seconds) to determine the number of staff needed.

Average time per call	94 seconds
Target Occupancy Rate	50%

The following table shows the number of staff needed in each hour to process incoming non-emergency calls in light of the factors listed above.

	Mon	Tue	Wed	Thu	Fri	Sat	Sun
12a	0.47	0.45	0.59	0.47	0.49	0.61	0.67
1a	0.48	0.40	0.46	0.43	0.50	0.61	0.57
2a	0.38	0.39	0.44	0.44	0.44	0.55	0.55
3a	0.35	0.38	0.35	0.35	0.43	0.52	0.45
4a	0.33	0.29	0.27	0.34	0.33	0.33	0.45
5a	0.27	0.29	0.30	0.29	0.30	0.31	0.35
6a	0.38	0.46	0.45	0.42	0.43	0.39	0.31
7a	0.65	0.66	0.74	0.70	0.69	0.56	0.45
8a	0.78	0.84	0.87	0.79	0.81	0.60	0.51
9a	0.93	0.93	0.91	0.85	0.89	0.81	0.59
10a	0.94	0.89	0.96	0.93	0.88	0.80	0.60
11a	0.91	0.91	0.91	0.89	1.20	0.79	0.70
12p	0.95	0.95	0.91	0.88	1.40	0.83	0.71
1p	0.94	0.98	0.94	0.92	1.44	0.85	0.72
2p	0.96	1.00	1.04	1.04	1.46	0.86	0.75
3p	1.01	1.03	1.07	1.03	1.42	0.86	0.74
4p	0.98	0.93	1.06	1.01	1.36	0.87	0.76
5p	1.15	1.06	1.19	1.19	1.10	0.76	0.72
6p	0.95	0.93	1.05	1.08	0.94	0.80	0.78
7p	0.81	0.82	0.91	1.00	0.91	0.75	0.67
8p	0.71	0.73	0.84	0.83	0.89	0.72	0.64
9p	0.67	0.74	0.71	0.73	0.81	0.77	0.61
10p	0.66	0.68	0.73	0.68	0.79	0.70	0.60
11p	0.53	0.58	0.63	0.60	0.71	0.71	0.48

The following subsection combines the dispatch and non-emergency call taking staffing figures to arrive at staffing for all functions other than emergency call-taking.

(1.5) Dispatch and Non-Emergency Calls Combined

The following table shows the dispatch staffing table and the staffing table for non-emergency call-taking, combined and rounded up to arrive at the total number of staff needed for functions other than emergency call-taking.

	Mon	Tue	Wed	Thu	Fri	Sat	Sun
12a	2	2	2	2	2	3	3
1a	2	2	2	2	2	2	2
2a	2	2	2	2	2	2	2
3a	2	2	2	2	2	2	2
4a	1	1	1	1	2	2	2
5a	1	1	1	1	1	1	1
6a	2	2	2	2	2	2	1
7a	3	3	3	3	2	2	2
8a	3	3	3	3	3	2	2
9a	3	3	3	3	3	3	2
10a	3	3	3	3	3	3	2
11a	3	3	3	3	3	3	3
12p	3	4	3	3	4	3	3
1p	3	4	3	3	4	3	3
2p	3	3	3	3	4	3	3
3p	3	3	3	3	4	3	3
4p	3	3	3	3	3	3	2
5p	3	3	3	3	3	2	2
6p	3	3	3	3	3	3	2
7p	3	3	3	3	3	3	2
8p	3	3	3	3	3	3	2
9p	2	3	3	3	3	3	2
10p	2	2	3	3	3	3	2
11p	2	2	2	2	3	3	2

In Section (2), this table is combined with the staffing needs for emergency call-taking to arrive at the total emergency communications staffing needed for the agency.

(2) Total Staffing (Call Takers and Dispatchers)

This section outlines the total hourly staffing needs of the agency and calculates the number of positions which should be authorized to achieve this.

(2.1) Hourly Staffing

The following table combines the emergency call-taking staffing needs (calculated using the Erlang model) and the dispatch and non-emergency staffing needs (calculated arithmetically) to arrive at the total daily and hourly staffing needed to ensure high levels of service.

	Mon	Tue	Wed	Thu	Fri	Sat	Sun
12a	4	4	4	4	4	5	5
1a	4	3	3	4	4	4	4
2a	3	4	3	3	3	4	4
3a	3	3	3	3	3	4	4
4a	2	2	2	2	3	3	4
5a	3	2	2	3	2	2	2
6a	4	4	4	4	4	4	3
7a	5	5	5	5	4	4	3
8a	5	5	5	5	5	4	4
9a	5	5	5	5	5	5	4
10a	5	5	5	5	5	5	4
11a	5	5	5	5	5	5	5
12p	5	6	5	5	6	5	5
1p	5	6	5	5	6	5	5
2p	5	5	5	5	6	5	5
3p	5	5	5	5	6	5	5
4p	5	5	5	5	5	5	4
5p	5	5	5	5	5	4	4
6p	5	5	5	5	5	5	4
7p	5	5	5	5	5	5	4
8p	5	5	5	5	5	5	4
9p	4	5	5	5	5	5	4
10p	4	4	5	5	5	5	4
11p	4	4	4	4	5	5	4

As the table shows, 5 staff are needed to meet workload needs during large swaths – and in fact most – of the day. The total staffed hours needed for this schedule is one week is 741.

Note: the exact hourly staffing needs can be smoothed to fit with the agency’s shift schedule; if the maximum staffing is 5 during periods where the model shows a need for 6 staff, it will keep the agent occupancy rate below 55%, which is still within a reasonable range. Alternatively, Supervisors may augment the staffing needs if the workload warrants the need.

(2.2) Total Filled Positions Needed

The 741 total hours per week equates to 38,638 hours per year. To determine the number of staff needed to fill these hours, a net availability figure is calculated. This uses 2,080

hours per year and subtracts time taken for FMLA, vacation, sick days, and other leave types, as well as 40 hours annually for training.

2,080	Annual Work Hours
306	Annual Leave Hours
- 40	Training Hours
<hr/>	
1,734	Total Annual Hours per FTE

The 38,638 total hours per year needed, when divided by staff's average net availability of 1,734 years, yields 22.28 positions which must be filled.

38,638	Total Annual Hours
÷ 1,734	Total Annual Hours per FTE
<hr/>	
22.28	Total Filled Positions Needed

This figure must be adjusted in the following section accounting for staff turnover and overtime to determine the number of authorized staff.

(2.3) Total Authorized Positions After Turnover.

The agency's total annual turnover rate for dispatcher positions is 23%, which means that at a given time, 23% of floor positions (or the equivalent of 5.12 positions) may be empty.

22.28	Total Filled Positions Needed
x 0.23	Turnover Rate
<hr/>	
5.12	Total Positions Empty

Adding these 5.12 positions to the 22.28 filled positions needed results in an authorized total of 27.4 FTE's.

22.28	Total Filled Positions Needed
+ 5.12	Additional Authorized Positions
<hr/>	
27.40	Total Authorized Positions

The agency should authorize 27.40 total Dispatcher to meet hourly staffing needs while accounting for staff's net availability and turnover rates.

(3) Overall Staffing Needs of Communications

In order to determine the overall staffing needs of Communication the project team analyze the workload as discussed previously and analyzed the current allocation of staff and their assigned duties. The following parameters were utilized in determining the overall staffing needs of Communications:

- The two vacant call-taker positions would be transitioned to the classification of dispatcher. Utilizing call takers in the staffing plan limits the ability of meeting minimum staffing needs and the ability to serve in multiple roles in the team. Also, call-takers are being phased out in most jurisdictions due to their limited responsibilities and replaced with dispatchers who can call-take and dispatch.
- All dispatchers are cross-trained in call taking and dispatching functions for both police and fire / EMS operations.
- Supervisors may continue to augment dispatching needs for the agency. A 50% availability for dispatching was utilized in the staffing model.
- Dispatchers II will continue to primarily serve as dispatchers but provide shift supervision in the absences of a Supervisor.

Based on the assumptions made above, a total of 25 Dispatchers I / II and 5 Supervisors positions are required to handle the current workload. This is an increase in two Dispatcher I positions. While eliminating two call-taker positions.

Recommendations:

A total of 25 Dispatcher I / II positions are required, which is an increase in two authorized Dispatcher I positions.

Eliminate the two vacant call-taker positions.

Maintain the five authorized Supervisor positions in Communications.

8 Projected Service and Staffing Needs

The previous chapters detailed current staffing needs for the Lewisville Police Department based on current service levels and job tasks. The following chapter builds upon current staffing needs by forecasting future staffing needs based upon assumed growth.

1 Introduction of the Projections Methodology

Lewisville has experienced moderate growth over the past decade and is expected to continue to modestly grow over the next decade, primarily with a combination of infill and mixed-use development. Also, in 2021, the City is anticipating the annexation of the Castle Hills development, which is currently in the city's extra-territorial jurisdiction. At the time of this study, Lewisville currently provides many services to Castle Hills, including law enforcement services.

The following sections provides a plan for the department over the 10-year planning horizon by projecting future police service needs based on current recommended staffing and forecasted service needs. Followed by the specific staffing levels that the Lewisville Police Department will need to maintain its desired service level to the community.

(1) Data Collected to Conduct the Projections Analysis

The project team collected data from a number of sources in order to project both population and service needs over the next decade, including the following:

- 2010 U.S. Census data at the individual block level, which includes both population and housing unit figures.
- 2016 American Community Survey (ACS) prepared by the U.S. Census Bureau at the block group level of geography, including estimates for population and housing units.
- Population projection models for Lewisville from Lewisville and the North Central Texas Council of Governments.
- Permits issued for both residential and non-residential construction at the individual point level, running from 2016 to 2018.
- 2018 computer aided dispatch (CAD) data, which includes geographic point coordinates to spatially isolate concentrations of community-generated calls for service.

- 2017 crime data, which includes addresses and police reporting areas.
- Police geographic divisions, districts, and beats.
- GIS (geographic information system) shapefiles showing current land use and zoning designations.

The data collected was integrated into a GIS (geographic information systems) format in order to spatially analyze historical, current, and future growth trends.

(2) Establishing a Common Level of Geography

For the planning analysis to be accurate and ultimately successful, it is critical that, as much as possible, individual service environments are projected based on service environments that similar to one another. Development and change may have vastly different implications for police service demand from one part of the city to another, which makes it necessary to identify and isolate where these differences exist.

To begin with, however, almost all of the data elements utilized in the analysis exist at different levels of geography, for instance:

- **Census:** Tracts, block groups, blocks
- **Zoning/land use:** Block or neighborhood, excludes street areas
- **Point layers:** Calls for service incidents from CAD data, crime occurrences, permitting data
- **Police geographic zones:** Patrol divisions, districts, and beats
- **Plat/neighborhood:** Preliminary plat plans and concept plans
- **Overall:** U.S. Census annual estimates, Planning and Development Department projections

The process of developing projections centers on making connections between each of the data elements. Consequently, the analysis requires that the data be transformed into a common set of geography, from which the different elements can be compared and tabulated.

The project team understands that Lewisville is relatively built out, especially related to single family homes. With the planned extension of DCTA (Denton County Transit Authority) rail, it is expected that some areas in close proximity to transit centers will experience some growth, primarily related with infill and mixed-use development.

Additionally, other infill opportunities may exist in the Old Town portion of Lewisville and would focus on mixed use development as well. Finally, it is the understanding of the project team that much of the vacant land in Lewisville is zoned industrial and is in close proximity to existing industry areas and not ideal candidates for residential or commercial use. Also, other large swaths of vacant land are designated parkland or is below the Lewisville Lake dam and is a nature preserve due to being in the floodplain.

With the scheduled annexation of the Castle Hills area into the city limits of Lewisville, the project team consulted the original master planned community agreement and proposed zoning. Due to the age of the original plat and development agreement, digital zoning and development data was not available. It is understood that the majority of developable land in Castle Hills is intended for mixed use, with the desire to include both commercial, office, and multi-family housing. The majority of single-family lots have been built out.

The following sections build upon this foundation to first estimate the pace of development and growth in Lewisville, using the results of that analysis to project law enforcement service and staffing needs.

2. Analysis of Projected Population Growth

While the data collected includes credible and defensible estimates for population at an overall level, the projected team was provided with three population projection models. This include a 1.0%, 1.5%, and 2.0% population growth models. The danger is long term projections is there are many variables that cannot be accounted for that can affect growth – for example, the type of residential growth post 2008 recession was considerably different than pre-recession. (e.g. more multifamily units than single family units). Since no single forecast model is rarely defensible for future development, the project team selected the 1.5% growth model to project future development trends.

The following table shows the estimated 2019 population and projected population in 2024 and 2029 for Lewisville and Castle Hills.

Population Projection				
Planning Area	2019 Pop	2024 Pop	2029 Pop	+/-%
Lewisville	107,545	115,857	124,810	16.1%
Castle Hills	16,725	18,017	18,840	16.1%
Total	124,270	133,874	144,220	16.1%

The population for Lewisville and Castle Hills is projected to increase 16.1% by 2029. The projected population in 2029 is 144,220 residents.

3. Analysis of Projected Calls for Service Needs

The following sections build upon the analysis of projected population to examine its effects on calls for service workload.

Calls for service projections can be made from past calls for service data for the year prior. Calls for service can change over years, but they remain fairly stable based on population and development type. It should be noted an increase/decrease in calls for service does not directly correspond to a need to increase or decrease staffing as each officer responds to a percentage of calls for service and any increase/decrease would be spread among existing personnel.

The following table presents the projected calls for service workload for Lewisville and Castle Hills. The LPD currently provides law enforcement services for Castle Hills and projections are based on the current workload. The 2019 CFS is a projection based on the 2018 calls for service baseline.

Projected Calls for Service				
Planning Area	2019 CFS	2024 CFS	2029 CFS	+/-%
Lewisville	39,676	42,743	46,046	16.1%
Castle Hills	2,333	2,514	2,708	16.1%
Total	42,010	45,256	48,754	16.1%

Calls for Service (CFS) is projected to increase 16.1% from 2018 workload levels. Overall a total of 48,752 calls for service are projected in Lewisville and Castle Hills.

4. Projected Patrol Staffing Needs

As detailed in the Patrol analysis chapter, proactivity (or % of uncommitted time) is the primary metric used to evaluate resource needs at the officer level. Following the analysis of calculating total patrol workload hours and net available hours spent on duty per officer position, patrol staffing needs can be determined by setting a target level of proactivity. For instance, a department staffing for a patrol proactivity level of 50% needs more officer positions in order to have the number of on-duty and available hours needed if workload is to take up only 50% of that time, compared with a department that sets 40% as their target.

The projected patrol staffing analysis focuses solely on patrol activities and does not include other proactive units (e.g. Traffic, NRO, etc.) in the proactive and staffing needs calculation. The project team utilized a proactivity threshold of 40% for projected staffing analysis.

Another important factor in this analysis is the rate of turnover, which is defined as the rate at which patrol officer positions become vacant through attrition. In determining staffing needs, this represents the 'buffer' that must be staffed for in order to provide the targeted level of service as vacancies occur. At a turnover rate of 6.1%, patrol unit positions should be staffed at least 6.1% higher than they would otherwise if position slots were always filled and never became vacant.

The following details how the increasing number of calls for service handled by the department will impact patrol workload overall, factoring in backup unit responses and report writing workloads:

Projected 10 Year Growth in Patrol Workload

	2018	2024	2029
Total Number of Calls for Service	41,389	45,256	48,754
Avg. Primary Unit Handling Time (min.)	56.0	56.0	56.0
Backup Units Per CFS	0.68	0.68	0.68
Avg. Backup Unit Handling Time (min.)	45.9	45.9	45.9
Reports Written Per CFS	0.17	0.17	0.17
Time Per Report (min.)	45.0	45.0	45.0
Avg. Workload Per Call (min.)	95.0	95.1	95.1
Total Workload Hours	65,537	71,725	77,269

In turn, the increasing workload will affect the number of hours that need to be staffed to meet the 40% threshold for adequate proactive time, as detailed in the following table:

Projected 10 Year Staffing Needs in Patrol

	2018	2024	2029
Net Available Work Hours Per Officer	1,493	1,493	1,493
Total Workload Hours	65,537	71,725	77,269
Proactivity Target	40.0%	40.0%	40.0%
Turnover	6.1%	6.1%	6.1%
Patrol Units Needed	78	85	92
+/- Change	+3	+7	+7

In order to keep pace with growth over the next decade and provide patrol services with at a proactivity level of 40%, seven additional positions are required in 2024 and again in 2029, in addition to the one authorized position needed now.

Patrol sergeant staffing needs can then be determined based on adequate spans of control, targeting a ratio of 1 sergeant for every 7 officers at an overall level, with slight variations expected depending on shift allocations. These calculations are provided in the following table:

Projected Patrol Sergeant Staffing Needs

Year	# Sgt.	+/- Sgt.	# Ofc.	Span of Control
2019	12	–	75	6.3
2024	13	+1	85	6.5
2027	14	+1	92	6.6

By adding an additional sergeant position in 2024 and again in 2029, spans of control will be able to keep pace with the number of officers needed to meet growth demands.

5. Projected Investigation Staffing Needs

To determine the impact of growth on investigative and other workloads the project team analyzed current calls for service and the impact on investigative caseloads. Only a small fraction of overall calls for service require further investigative resources beyond the patrol officer. To determine the impact the team used 2018 calls for service and 2018 caseloads to develop a percentage of calls that result in an investigative case.

There are two broad categories of crime tracked by UCR / NIBRS and that encompass sub-categories. The large categories are person crimes and property crimes. Historically in Lewisville and other communities there are far more property crimes than person crimes. Each type crime requires different investigative time and therefor different resources. As noted in the previous chapter on investigations person crimes detectives

can effectively investigate 6 to 8 person crime per month or approximately 96 assigned cases per year while property crimes detectives can investigate 12 to 15 per month or approximately 144 assigned cases per year.

Investigative cases also impact other units such as property and evidence and crime scene. As investigative caseloads increase, so does the workloads for these ancillary units. The tables below show probable caseload increases by crime category using the projected calls for service model.

Projected Caseload Increases

	2018	2024	2029
Total CFS	41,389	45,256	48,754
Person Crime Case Load	1,212	1,312	1,413
Property Crime Case Load	1,858	1,991	2,145
% Resulting in a case			
Person Crimes	2.9%	2.9%	2.9%
Property Crimes	4.4%	4.4%	4.4%
Person Crime Det. Ratio	1 to 6- 8	1 to 6-8	1 to 6-8
Property Crime Det. Ratio	1 to 12-15	1 to 12-15	1 to 12-15
Detectives Required			
Person Crimes	13	14	15
Property Crimes	12	12	13

As the tables above indicate there will be increasing caseloads in the next ten years and corresponding caseloads will increase requiring additional detectives.

6. Comprehensive Staffing Projections

The service need projections have provided the basis of the methodology used to determine staffing needs of core functions that scale directly with service needs, including patrol officers and sergeants, as well as detective positions. From this important foundation, the staffing needs for every other department function are then able to be developed. The majority of these projections are interrelated to the staffing needs of patrol and detectives, either through changes to service needs, or as a result of organizational/support factors. It is critical that the process of developing projections for the entire department be done position by position, rather than scale the department as

a whole, given that the factors contributing to an individual position's staffing needs are unique and different from those of another position.

As detailed previously in the chapter, five primary scaling factors are involved in determining how the staffing needs for an individual role change as growth occurs in the jurisdiction. The needs for an individual position may be based on:

- Service needs and related workloads (e.g., patrol staffing scales to call for service workloads).
- Relationship to workloads created by other positions (e.g., records workloads increasing with patrol staffing).
- Spans of control and management responsibilities (e.g., patrol sergeant staffing is set by achieving a targeted span of control).
- Size of command/division or organization (e.g., human resources staffing needs based on number of positions in the department they support).
- Non-scalable (e.g., there is only one chief of police).

Using these scaling factors, the projection analysis determines the staffing levels needed over the next ten years. The following pages contain this analysis, provided an overview of the projection factors utilized for each position in calculating needs through the year 2029.

In reviewing the projections, it should be noted that the positions highlighted in a **green font** are new positions for the Department.

Projected Staffing

Unit	Employee Classification	Projection Factors	2019 Authorized	2019 (Rec)	2024	2029
ADMINISTRATION						
	Chief	Executive position; does not scale.	1	1	1	1
	Sr Administrative Assistant	Unique role; does not directly scale.	1	1	1	1
	Administrative Assistant	Unique role; does not directly scale. Maintain current approach of specialization of HR / Finance duties between positions	2	2	2	2
	Public Information Officer	Unique role; does not directly scale.	1	1	1	1
	Internal Affairs Officer	Unique role; position does not scale.	1	1	1	1
Administration Total Staff			6	6	6	6
SUPPORT BUREAU						
	Assistant Chief	Executive position, scales to complexity of responsibilities and number of direct reports.	1	1	1	1
	Background Investigator	Scales to increase in staffing and turnover. Currently augmented by part time staff when hiring increases	1	1	1	1
	Captain	Executive officer position; scales at 1 per bureau, command, or division executive.	1	1	1	1

Unit	Employee Classification	Projection Factors	2019 Authorized	2019 (Rec)	2024	2029
Jail	Supervisor	Scales to span of control; no major changes expected in jail staffing	6	6	6	6
Jail	Detention Officer I	Scales to size of operations of jail.	10	10	10	10
Jail	Detention Officer II	Scales to size of operations of jail.	5	5	5	5
Property & Evidence	Supervisor	Scales to span of control; No major changes are expected to roles or workload within the projection timeframe.	1	1	1	1
Property & Evidence	Technician	Scales to evidence and property in possession and to the number of BWC and in-car videos.	4	5	6	7
DA Liaison	Sergeant	Scales to span of control; no major changes are expected to the number of staff supervised in DA and Warrants.	1	1	1	1
DA Liaison	Clerk	Scales to workload and number of patrol officers.	2	3	3	3
Warrants	Officer	Scales to workload and number of active warrants	3	3	3	3
Warrants	Clerk	Does not scale, based on proactive usage.	0	1	1	1

Unit	Employee Classification	Projection Factors	2019 Authorized	2019 (Rec)	2024	2029
Training	Sergeant	Support position, scales to number of positions supported. No major changes are expected to roles or workload within the projection timeframe.	1	1	1	1
Training	Administrative Assistant	Support position, scales to number of positions supported.	0	1	1	1
Training	Officer	Support position, scales to number of positions supported. No major changes are expected to roles or workload within the projection timeframe.	1	1	1	1
K9	K9 Officer	Elective priority; scales based on level of coverage/enforcement desired as a proactive unit.	2	2	2	2
Support Total Staff			39	43	44	45
INVESTIGATIONS						
	Captain	Executive officer position; scales at 1 per bureau, command, or division executive.	1	1	1	1
	Administrative Assistant	Unique role; does not directly scale.	1	1	1	1
	Public Safety Data Tech	Unique role; does not directly scale. Note changes of duties to new DA Clerk position	1	1	1	1

Unit	Employee Classification	Projection Factors	2019 Authorized	2019 (Rec)	2024	2029
Property Crimes	Sergeant	Supervisor and lead of the unit, scales based on supervisory spans of control. Based on the sergeant's relatively narrower span of control of 1:6, an additional sergeant is not needed within the projection timeframe.	1	2	2	2
Property Crimes	Detective	Scales to the caseload assigned as outlined in previous chapter	9	12	12	13
Property Crimes	Intern	Scales to the caseload assigned as outlined in previous chapter	1	1	1	1
CAPERS	Sergeant	Supervisor and lead of the unit, scales based on supervisory spans of control. Based on the sergeant's relatively narrower span of control of 1:6, an additional sergeant is not needed within the projection timeframe.	1	2	2	2
CAPERS	Detective	Scales to the caseload assigned as outlined in previous chapter	6	13	14	15
CAPERS	Crime Scene Technician	Unique role; does not directly scale.	1	2	2	2
CAPERS	Victim Advocate	Unique role; does not directly scale.	1	1	1	1
Street Crimes	Sergeant	Supervisor and lead of the unit, scales based on supervisory spans of control. Based on the sergeant's relatively narrower span of control of 1:6, an additional sergeant is not needed within the projection timeframe.	1	1	1	1

Unit	Employee Classification	Projection Factors	2019 Authorized	2019 (Rec)	2024	2029
Street Crimes	Detective	Scales to the caseload assigned as outlined in previous chapter	6	6	6	6
Street Crimes	Officer	Proactive unit, scales with the level of desired proactivity.	2	2	2	2
Narcotics	Sergeant	Supervisor and lead of the unit, scales based on supervisory spans of control.	1	1	1	1
Narcotics	Detective	Elective priority; scales based on level of coverage/enforcement desired as a proactive unit.	5	5	5	5
Investigations Total Staff			38	51	52	54
OPERATIONS SUPPORT						
	Captain	Executive officer position; scales at 1 per bureau, command, or division executive.	1	1	1	1
	Sergeant	Scales to the number of units/functions managed by the sergeant. No changes to functional span of control are expected within the projection timeframe.	1	2	2	2
SRO	Officer (SRO)	Elective priority; scales based on level of coverage/enforcement desired as a proactive unit.	9	9	9	9
NRO	Officer (NRO)	Elective priority; scales based on level of coverage/enforcement desired as a proactive unit.	4	5	5	5

Unit	Employee Classification	Projection Factors	2019 Authorized	2019 (Rec)	2024	2029
Parking	Parking Enforcement Officer	Scales to the number of parking spaces that are paid parking, number of abandoned vehicles, etc.	1	2	2	2
Traffic	Sergeant	Scales to the number of units/functions managed by the sergeant. No changes to functional span of control are expected within the projection timeframe.	1	2	2	2
Traffic	Officer	Elective priority; scales based on level of coverage/enforcement desired as a proactive unit.	10	10	10	10
Fleet	Vehicle Maintenance Officer		2	2	2	2
Operations Total Staff			29	33	33	33
PATROL						
Patrol	Assistant Chief	Executive position, scales to complexity of responsibilities and number of direct reports.	1	1	1	1
Patrol	Captain	Executive officer position; scales at 1 per shift or watch.	4	4	4	4

Unit	Employee Classification	Projection Factors	2019 Authorized	2019 (Rec)	2024	2029
Patrol	Sergeant	Scales to supervisory spans of control. As detailed in the expanded overview of patrol staffing projections, staffing needs are based on the number needed to achieve an approximate 1:7 span of control overall, and then divided among the shifts.	12	12	13	14
Patrol	Officer	Scales to service needs. The projection methodology for patrol officers has been outlined earlier in the chapter and is based on estimated increases to call for service.	75	78	85	92
Patrol Total Staff			92	95	103	111
TECHNOLOGY SERVICES						
	Manager	Executive position, scales to complexity of responsibilities and number of direct reports.	1	1	1	1
Communications	Supervisor	Scales to supervisory spans of control. As detailed previously no major increases in staffing expected.	5	5	5	5
Communications	Dispatcher I	Scales to calls for service volume.	18	20	22	24

Unit	Employee Classification	Projection Factors	2019 Authorized	2019 (Rec)	2024	2029
Communications	Dispatcher II	Scales to calls for service volume.	5	5	5	5
Communications	Call Taker	Proposed to eliminate and replaced with cross-trained dispatchers	2	0	0	0
Records	Supervisor	Scales to supervisory spans of control.	1	1	1	1
Records	Clerk	Maintain current staffing and assess staffing needs and roles and responsibilities after new RMS system implemented	5.5	5.5	5.5	5.5
Records	Open Records Technician	Scales with open record request workload. May be assisted by Records Clerk reassigned duties based on efficiencies gained with new RMS system.	1	1	1	1
Technology Services Total Staff			38.5	38.5	40.5	42.5
GRAND TOTAL STAFFING			242.5	266.5	278.5	291.5

Appendix A – Profile of the Police Department

1. Introduction

The following descriptive profile outlines the organization, structure, and staffing of the Lewisville Police Department (LPD). The information contained in the profile was developed through a number of interviews conducted within LPD at all levels of the organization, including managers, supervisors, and line-level staff. *It represents the Department during our fieldwork in the Summer of 2019.*

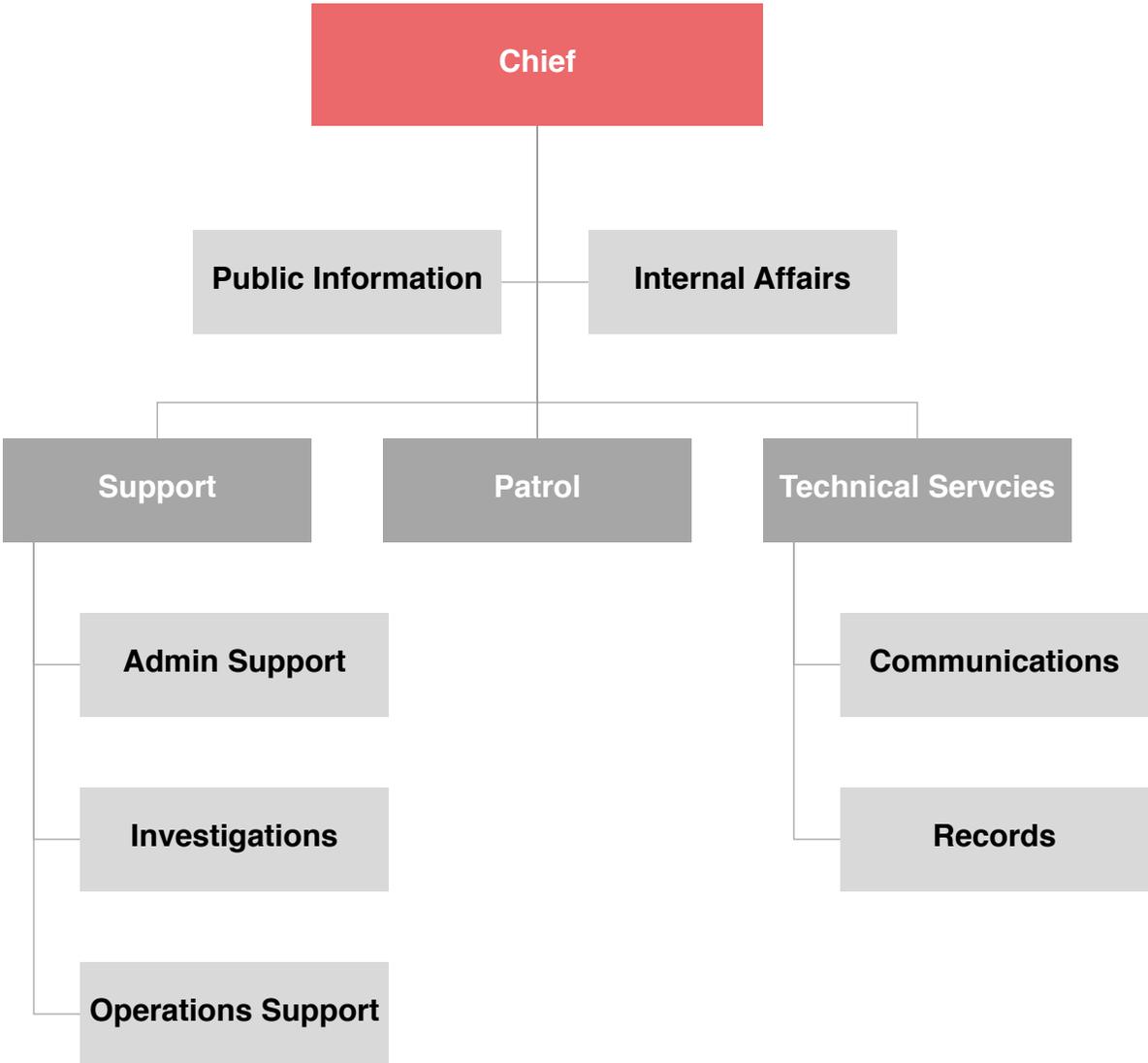
It is also important to note that the primary objective of this profile is to review and confirm our current understanding of the Police Department. Consequently, no analysis or findings are contained in this document. Instead, the document focuses on outlining the following items:

- The organizational structure of each area of the Police Department.
- High level descriptions of the main functions and work areas of each LPD subdivision.
- The authorized (budgeted) and actual (currently filled) number of positions by rank or classification assigned to each unit.
- The roles, objectives, and responsibilities of each unit.

The profile was the first deliverable of this project and helped serve as a foundation for our assumptions regarding staffing and current organizational characteristics of the functional areas included in scope of the study.

The following chart is a general functional depiction of the structure of the Lewisville Police Department.

LPD Organizational Chart

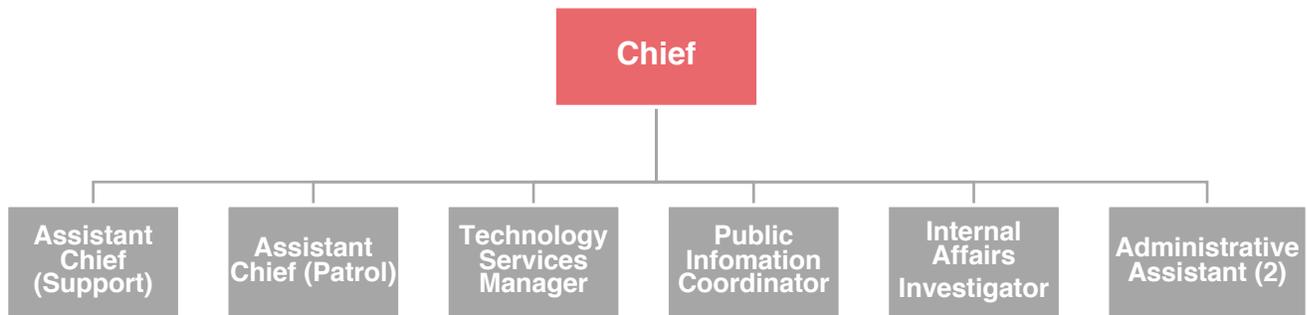


2. Chief's Office

The Chief provides overall direction, guidance and leadership for the Police Department. The Chief has responsibility for every area of the organization and ensures that all employees perform their jobs in accordance with the overall mission of the Department and in accordance to the established values. Reporting directly to the Chief is the two Assistant Chiefs (Support & Patrol), Technology Services Manager, Internal Affairs, Public Information Coordinator and Administrative Assistants.

(1) Organization

The following chart outlines the organization of the Chief's office:



(2) Staffing and Unit Descriptions

The following table provides the personnel and major tasks of staff for Administration. The Assistant Chief and Technology Service Managers are included in their respective sections.

Unit/Division	Curr.	Auth.	Position	Unit Description
Chief	1	1	Chief	<ul style="list-style-type: none"> Provides the overall leadership, management, and administration of the Police Department. Reviews policies and procedures, goals and objectives. Performs routine administrative functions in the day to day management of the LPD. Administrative Assistant positions provide a variety of administrative support to the LPD, including: human resource liaison (e.g.
	0	1	Sr. Administrative Assistant	
	2	2	Administrative Assistants	

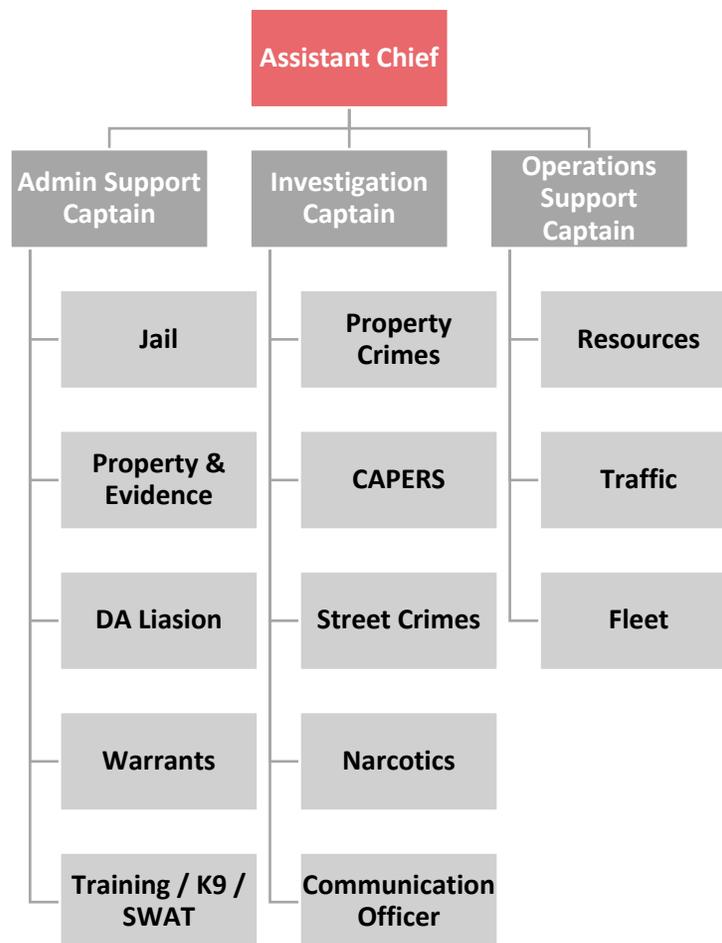
Unit/Division	Curr.	Auth.	Position	Unit Description
				<p>processing new hires and departures, maintain employment records, maintain employee evaluation records etc.); process account payables / receivables, review and process p-card and other purchases, process travel expenses; issue LPD identification cards and facility badges, etc.</p> <ul style="list-style-type: none"> • Sr. Admin. Asst. serves as executive assistant to Chief and Assistant Chiefs. • Updates policy and procedures in Power DMS.
Internal Affairs	1	1	Officer	<ul style="list-style-type: none"> • The Officer is responsible for all internal investigations. The background investigator is the back up when/if necessary. • The Officer is responsible for all data entry into IAPro and Blue team (when launched). • The Officer conducts audits of property and evidence, Narcotic Investigative Funds and Department Ammunition. • The Officer has a collateral duty as a Firearms Instructor.
Public Information	1	1	Public Information Coordinator	<ul style="list-style-type: none"> • Serves as the public information officer for the LPD, and is the backup for the City's PIO. • Responsible for drafting press releases, newsletters, social media posts, and information brochures for the LPD. Serves as a liaison to media outlets. • Future role includes the creation of promotional and safety videos for the LPD. • Position initially established in January 2019.

3. Support Bureau

The Support Bureau is comprised of three functional units: Support Admin, Investigations, and Support Operations. The Support Admin unit includes the City's Jail (24 – 48 hour lockup), Property and Evidence, Warrants, Court Liaison, and Training / K9 / SWAT operations. The Investigation Unit includes the proactive and reactive investigative teams for the department. Finally, Support Operations includes the School and Neighborhood Resource Teams, the Traffic Unit, and Fleet operations.

(1) Organization

The following chart outlines the organization of Administrative Support:



(2) Staffing and Unit Descriptions for the Support Bureau.

The following table provides the personnel and major tasks of Support Bureau Administration.

Unit/Division	Curr.	Auth.	Position	Unit Description
Administration	1	1	Assistant Chief	<ul style="list-style-type: none"> • Provides oversight to the Division. • Leads the development of the Department's budget. • Part of the Department's command staff and serves in the Chief's absence. • Is directly over Admin Support, Investigations, and Operations Support. • Responsible for the development and monitoring of the departmental budget, including grant administration. • Oversees the hiring and background process for the Department. • Tasked with the procurement of departmental vehicles. • Assigned to special projects as directed.
Background Investigator	1	1	Investigator	<ul style="list-style-type: none"> • Conducts background investigations for potential new hires throughout the LPD. • Part time investigators assist with backgrounding information and verification.

(3) Staffing and Unit Descriptions for Admin Support.

The following table provides the personnel and major tasks of staff for Admin Support.

Unit/Division	Curr.	Auth.	Position	Unit Description
Administration	1	1	Assistant Chief	<ul style="list-style-type: none"> • Provides oversight to the Division. • Leads the development of the Department's budget. • Part of the Department's command staff and serves in the Chief's absence. • Is directly over Admin Support, Investigations, and Operations Support. • Responsible for the development and monitoring of the departmental budget, including grant administration. • Oversees the hiring and background process for the Department. • Tasked with the procurement of departmental vehicles.

Unit/Division	Curr.	Auth.	Position	Unit Description
				<ul style="list-style-type: none"> Assigned to special projects as directed.
	1	1	Captain	<ul style="list-style-type: none"> Services as the Unit commander, including direct oversight of the Jail, Property/Evidence, and Training. Coordinates administrative activities within the department including the ordering of major supplies and equipment for entire department.
Jail	6	6	Supervisor	<ul style="list-style-type: none"> Responsible for the processing and release of inmates into the Lewisville City Jail. Supervises inmates held in the jail. Staff is responsible for the processing of bail and bond payments, assisting the public at the public counter, fingerprinting the public, and accepting water payments. They also fingerprint juveniles, which are not booked into the Jail. Detention Officer II's backfill supervisory position. Transportation of inmates is the responsibility of Patrol Officers.
	2	4	Detention Officer II	
	8	11	Detention Officer	
Property & Evidence	1	1	Supervisor	<ul style="list-style-type: none"> Responsible for the intake, catalog, disposal / destruction of property and evidence collected by the LPD. One Tech is primarily tasked with the intake processing of new property and evidence. One Tech is primarily tasked with the disposition / disposal of property and evidence. One Tech serves as the body worn camera bookmarking. One Tech assists with video bookmarking, video retrieval (BWC and dashcam), and processing / disposal of evidence. Supervisor also assist with video bookmarking and retrieval for open record requests. Processed 11,231 items and disposed of 9,478 items in 2018.
	4	4	Technician	
DA Liaison	1	1	Sergeant	<ul style="list-style-type: none"> Sergeant is responsible for reviewing the case file for arrest (primarily patrol) Also, testifies on behalf of the arresting
	2	2	Clerk	

Unit/Division	Curr.	Auth.	Position	Unit Description
				<p>officer. Also presents to the Grand Jury each Thursday.</p> <ul style="list-style-type: none"> • Sergeant resolves issues with cases / reports from both the District and Municipal courts and the LPD. • Clerks process arrest report (adult) to the District Attorney. This includes all reports that are submitted to the District Attorney for the Department.
Warrants	2	3	Officer	<ul style="list-style-type: none"> • Responsible for the location and apprehension of individuals with outstanding warrants. This includes transporting arrestee from other jurisdictions with Lewisville warrants. • Serve as bailiff for the Municipal Court and ensure court paperwork is properly signed. • Set payment plans for fines and warrants. • 2 Officers work Mon – Thursday (0700 – 1730 hours), 1 Officer works Wednesday – Saturday (0700 – 1730).
Training	1 1	1 1	Sergeant Officer	<ul style="list-style-type: none"> • The Sergeant is responsible for coordinating classes and supervising one training officer and two K9 officers. • The training Unit conducts a TCOLE certified “in house” Academy and provides in-service training to tenured officers. • The Sergeant teaches classes, inputs training records and scheduling range use with multiple agencies. • The Sergeant also coordinates SWAT training and equipment purchases and repair. • The Sergeant coordinates “off duty” overtime staffing. • The Sergeant is also responsible for issuing police uniforms and equipment (Due to current vacancy for quarter master at the Fire Department). • The training officer assists with teaching and coordinating classes and use of the range.

Unit/Division	Curr.	Auth.	Position	Unit Description
K9	2	2	Officer	<ul style="list-style-type: none"> The K9 unit consists of two officers who are direct reports to the Training Sergeant. The K9 officers' work 10 hour shifts (1-hour kennel time) seven days a week 5pm to 2am. One K9 works Tuesday Through Friday and one works Saturday through Tuesday. Tuesday is a multi-jurisdictional training day. Both K9s are dual purpose, tracking and narcotics detection. One K9 officer is a certified instructor.
SWAT (Collateral Duty)	1	1	Administrative Captain	<ul style="list-style-type: none"> SWAT is a collateral assignment with no full-time staff. SWAT team operators train twice a month for a minimum of 16 hours total. Support Officers assist on call outs by operating equipment and assisting with logistics and intel.
	1	1	Sergeant (Commander)	
	18	18	Officer (Operators)	
	6	6	Officer (Support)	
Hostage Negotiations Team (Collateral Duty)	1	1	Sergeant	<ul style="list-style-type: none"> HNT is a collateral assignment with no full-time staff. HNT train once a quarter for a minimum of 32 hours total annually. HNT is deployed with SWAT.
	5	5	Officer	

(4) Jail Schedule and Staffing Levels

Jail staff work an 8.5-hour shift and are assigned to one of three shifts. Staff work a five day on and two day off schedule. "A Shift" is from 2230 to 0700 hours, "B Shift" is from 0630 to 1500 hours, and "C Shift" is from 1430 to 2300 hours. A total of two Supervisors are assigned to each shift. Overall, each shift is assigned a total of seven positions.

Minimum staffing levels for the shift is two staff members, including a Supervisor. Preferred staffing level is a four staff per shift. However, when staffing vacancies exist, B and C shifts are staffed slightly heavier to account for increase in paperwork and public window duties.

(5) Staffing and Unit Descriptions for Investigations

The following table provides the personnel and major tasks of staff for Investigations.

Unit/Division	Curr.	Auth.	Position	Unit Description
Administration	1	1	Captain	<ul style="list-style-type: none"> The Captain is responsible for the day to day operations of the Division. Supervises four Sergeants and two non-sworn. Coordinates Seizures and Asset forfeiture. Serves as the Safety Review Board Chair. Maintains investigative funds ledger. The Administrative Assistant provides administrative support to the Division and Captain. Administrative Assistant coordinates the sex offender registry.
	1	1	Administrative Assistant	
Property Crimes	1	1	Sergeant	<ul style="list-style-type: none"> The Sergeant is responsible for the day to day operations of the unit and scheduling. The Sergeant is responsible for assigning and reviewing cases. The Sergeant monitors case updates. Three Detectives are assigned to Financial / Fraud Crimes, two Detectives are assigned to Auto Theft / Auto Burglary and four Detectives are assigned as generalist property crimes investigators. The Detectives provide case follow up, write warrants, subpoenas and conduct interviews. The Detectives are responsible for providing case updates. The Intern recovers and reviews video evidence.
	9	9	Detectives	
	0	1	Intern (Paid)	
CAPERS	1	1	Sergeant	<ul style="list-style-type: none"> The Sergeant is responsible for the day to day operations of the unit and scheduling. The Sergeant is responsible for assigning and reviewing cases. The Sergeant monitors case updates. Three Detectives are assigned to Generalist Person Crimes; two Detectives are assigned to Juvenile Crimes and one Detective is assigned to Family Violence. Detectives work day shift.
	6	6	Detective	
	1	1	Crime Scene Technician	
	1	1	Victim Advocate (Sworn)	

Unit/Division	Curr.	Auth.	Position	Unit Description
				<ul style="list-style-type: none"> • The Detectives provide case follow up, write warrants, subpoenas and conduct interviews. • The Detectives are responsible for providing case updates. • The Crime Victim Advocate contacts victims of person crimes and carries a small family violence caseload. The Crime Victim Advocate works 0400-1200. • The Crime Victim Advocate processes UVisas and sex assault forensic exam reimbursement. • The Crime Scene Technician sometimes recovers prints and processes crime scenes. The Crime Scene Technician works 7am to 5pm Monday through Thursday and 7am to 11am of Fridays. • The Crime Scene Technician sometimes recovers and processes digital evidence from crime scenes.
Street Crimes	1 3 2	1 6 2	Sergeant Detective Officers	<ul style="list-style-type: none"> • The Sergeant is responsible for the day to day operations of the unit and scheduling. • The Sergeant is responsible for assigning and reviewing cases. • Three detectives work street crimes and two work gangs. The vacancies would work street crimes. • Street Crimes Detectives provide proactive investigation of multiple victim crime sprees and other serious crimes. • The Gang detectives investigate criminal gang activities, document gang members and conduct gang related investigations. One Gang detective belongs to "HIS" Federal Task Force. • Detectives generally work a mid-days / afternoon shift, but flex often depending case or proactive needs. • The Detectives provide case follow up, write warrants, subpoenas and conduct interviews. • The Detectives are responsible for providing case updates.

Unit/Division	Curr.	Auth.	Position	Unit Description
Narcotics	1	1	Sergeant	<ul style="list-style-type: none"> • The Sergeant is responsible for the day to day operations of the unit and scheduling. • Sergeant is responsible for assigning and reviewing the cases and coordinates unit activities. • Sergeant is responsible for investigative funds, coordinating informants and unit paperwork. • The Detectives provide case follow up, coordinate informants, write warrants, subpoenas and conduct interviews. • The Detectives are responsible for providing case updates. • One Detective is assigned to the DEA task force.
	5	5	Detective	
Crime Analysis	1	1	Public Safety Data Technician	<ul style="list-style-type: none"> • Responsible for reviewing police reports for proper NIBRS coding. Report NIBRS data to appropriate state and federal agencies. • Conducts crime analysis for the Department. Including compiling monthly and annual statistics and crime analysis as directed. • System administrator for RMS, jail management system, and in-car video systems.

(6) Staffing and Unit Descriptions for Operations Support

The following table provides the personnel and major tasks of staff in Operations Support.

Unit/Division	Curr.	Auth.	Position	Unit Description
Administration	1	1	Captain	<ul style="list-style-type: none"> The Captain is responsible for the day to day operations of the Division. Supervises two Sergeants and two Vehicle Porters. Coordinates Vehicle and Equipment purchases and maintenance. Serves as the best practices manager- reviews and updates policies. Is the final reviewer for cases submitted through the Traffic and School Resource Officer Units. Serves as the Towing Contract Manager.
School Resource Officer Unit / Neighborhood Resource Officer Unit / Parking Enforcement	1 9 4 1	1 9 4 1	Sergeant Officer (SROs) Officer (NROs) Parking Enforcement Officer	<ul style="list-style-type: none"> The Sergeant is responsible for the day to day operations of the School Resource Officer Unit, the Neighborhood Resource Officer Unit and the Parking Enforcement Unit. Sergeant is responsible for reviewing the case file for arrests and resolves issues with cases / reports. Nine officers work day shift as SROs at the High and Middle Schools. These positions are 50% funded by the Lewisville ISD. SROs teach classes, attend after school functions and conduct assigned investigations. Neighborhood Resource Officers provide targeted enforcement of liability related issues (Abandoned auto's homeless, problem properties). Parking Enforcement patrols the old town area enforcing parking regulations.
Traffic	1 10	1 10	Sergeant Officer	<ul style="list-style-type: none"> The Sergeant is responsible for the day to day operations of the unit and scheduling. Sergeant is responsible for reviewing the case file for arrests and resolves issues with cases / reports. Three officers work day shift (0630-1700), three officers work night shift

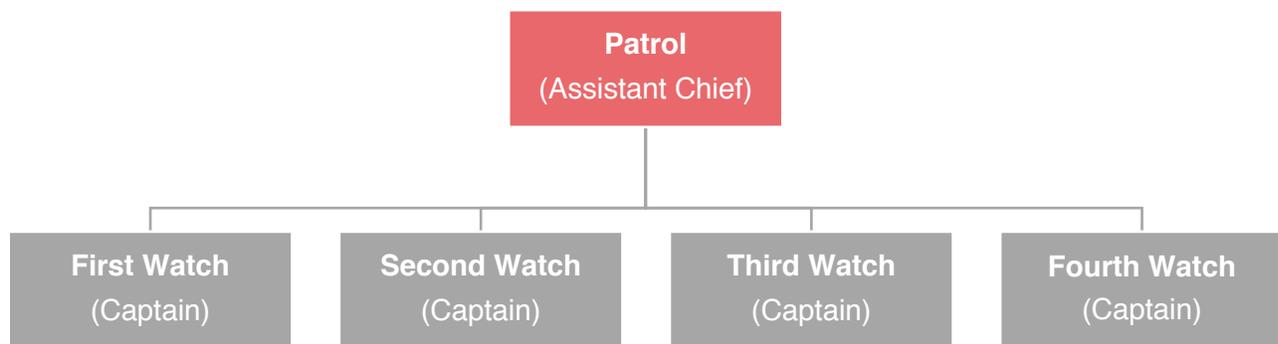
Unit/Division	Curr.	Auth.	Position	Unit Description
				<p>(0930-2000), and two officers work DUI enforcement (1900-0530) and one officer works Hit and Run (0630-1700). All officers work a 10-hour shift with different days off to cover the week.</p> <ul style="list-style-type: none"> • Traffic officer provide active enforcement in high crash areas and respond to crashes. • Several officers have collateral duties as SWAT or Instructors. One officer is a Commercial Vehicle Inspector.
Fleet	2	2	Vehicle Maintenance Officers	<ul style="list-style-type: none"> • The two Vehicle Maintenance Officers are responsible for coordinating maintenance of vehicles. • Shuttle vehicles for repairs and maintenance. • Perform minor “curb side” maintenance.

4. Patrol

Patrol is managed by the Assistant Chief, who reports directly to the Chief of Police. It is split into four watches, each of which headed by a Captain. Under the current fixed-day 12-hour shift schedule, there are four watches, with two working days and the other two nights. All specialized units and support field units, including K9 officers, are organized outside of Patrol.

(1) Organization

The following chart outlines the organization of Patrol:



(2) Staffing and Unit Descriptions

The following table provides the personnel and major tasks of staff for Patrol. The “Curr.” column displays the number of currently filled positions, while the “Auth.” column provides the number of authorized (budgeted) positions.

Unit/Division	Curr.	Auth.	Position	Unit Description
Administration	1	1	Assistant Chief	<ul style="list-style-type: none"> The assistant chief is responsible for all patrol functions, managing the four watches. When critical incidents occur, the assistant chief will be notified and, in some cases, respond. The assistant chief is responsible for administrative functioning of the division, as well as a number of special projects and miscellaneous duties on an ad hoc basis.
First Watch	1	1	Captain	<ul style="list-style-type: none"> Works Monday, Tuesday, Wednesday, and Thursday (every other week). Half of the shift works from 0600–1800, with the other half working from 0700–1900. Briefings are conducted separately.
	2	3	Sergeant	
	13	18	Officer	

Unit/Division	Curr.	Auth.	Position	Unit Description
				<ul style="list-style-type: none"> • Officers work an 80-hour biweekly pay period. Because officers are scheduled to work 7 12-hour shifts each biweekly pay period, they will work one shorter 8-hour shift once every two weeks to bring the biweekly total down to 80 hours. • Patrol sergeants function as the first-line supervisors for patrol officers and complete all evaluations for the officers assigned to them. • Report review is primarily the responsibility of sergeants. • Captains function as watch commanders, though if the captain is out on a particular day, the sergeant will assume that duty. • Patrol officers and sergeants respond to emergency incidents and other calls for service, completing reports as needed, as well as conducting proactive policing when time is available to do so. • Officers can work a maximum of 16 hours (including overtime) in a day. • Shift assignment is made through a sign-up process that uses seniority to establish preference.
Second Watch	1	1	Captain	<ul style="list-style-type: none"> • Works Thursday (every other week), Friday, Saturday, and Sunday. • Half of the shift works from 1800–0600, with the other half working from 1900–0700. Briefings are conducted separately. • <i>Duties and responsibilities are identical to those of the other watches.</i>
	2	3	Sergeant	
	15	18	Officer	
Third Watch	1	1	Captain	<ul style="list-style-type: none"> • Works Monday, Tuesday, Wednesday, and Thursday (every other week). • Half of the shift works from 0600–1800, with the other half working from 0700–1900. Briefings are conducted separately. • <i>Duties and responsibilities are identical to those of the other watches.</i>
	2	3	Sergeant	
	16	17	Officer	
Fourth Watch	1	1	Captain	<ul style="list-style-type: none"> • Works Thursday (every other week), Friday, Saturday, and Sunday. • Half of the shift works from 1800–0600, with the other half working from 1900–0700. Briefings are conducted separately. • <i>Duties and responsibilities are identical to those of the other watches.</i>
	2	3	Sergeant	
	19	22	Officer	

(3) Contract-Based Deployment

LPD provides basic law enforcement services to the Castle Hills per contract, a large development within the extraterritorial jurisdiction (ETJ) of Lewisville, but is not currently within its incorporated municipal boundaries. The city has stated its intent to annex Castle Hills within the next few years, which would make it a regular portion of the Lewisville Jurisdiction and replace the police services contract.

The current scope of basic police services provided to Castle Hills, has not mandated a certain level of focused deployment from regular patrol units or specialized units. Recently, however, Castle Hills elected to contract for additional coverage of 1 patrol officer for 16 hours per day, with that officer dedicated specifically to the Castle Hills area. The coverage is staffed entirely through overtime, meaning that the coverage is not directly paid for through the Lewisville General Fund.

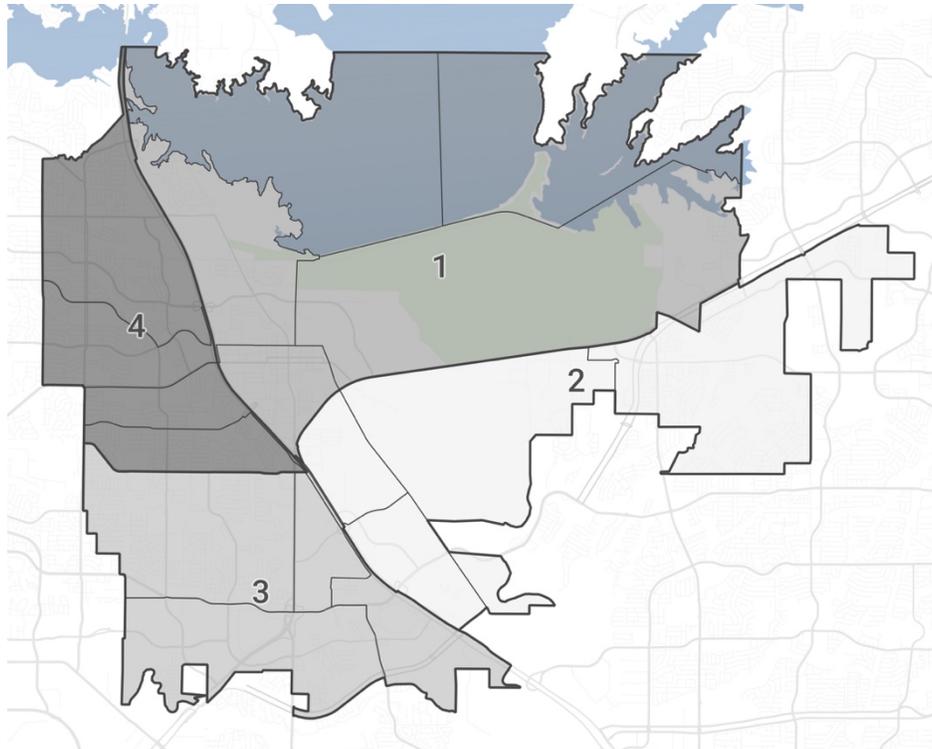
(4) Minimum Staffing

Minimum staffing is 10 across all shifts, although watch commanders may elect to set a higher threshold, which is typically done for weekend nights. If scheduled on-duty staffing levels fall below 10 on a particular day, officers will be called in on overtime to meet that threshold.

(5) Geographic Deployment

The Lewisville Police Department jurisdiction is organized into four districts, which are then subdivided into 17 beats. Two of these beats are almost entirely comprised by Lewisville Lake, meaning that for operational purposes, there are 15 active beats. It is worth noting that because minimum staffing and typical on-duty staffing is lower than the number of beats, not every beat is covered. Consequently, this shifts the operational focus, other than for initial day-to-day assignments, to the districts.

The following map provides the boundaries of the four districts and the beats they contain:



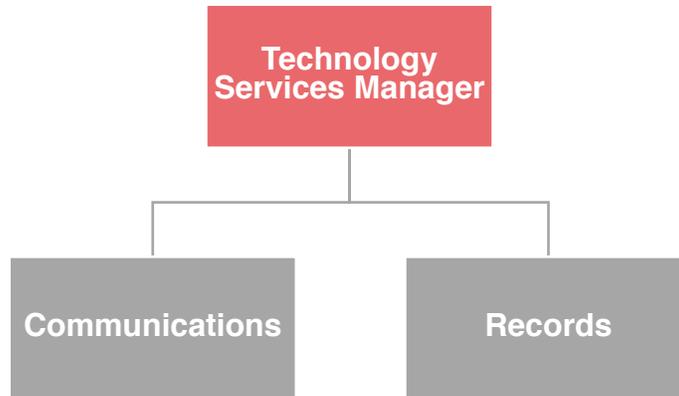
Note: Beat 900 and 102 are for the FD only. LPD does not utilize these beats.

5. Technology Services

Technology Services include Communications and Records services for the Police Department. Communications is responsible for answering all 911 and non-emergency calls and will dispatch appropriate law enforcement, fire, or medical services. The Communications section creates and maintains all NCIC/TCIC records for stolen items and wanted persons as well as overseeing CJIS and NCIC/TCIC certification for all Police Department employees. The Communications section is also responsible for monitoring the fire alarm system for City buildings and facilities as well as monitoring the primary camera feed system and security alarm system for the City. Records is responsible for inputting and maintaining all Police Department records, reports and citations. Records staff also responds to records requests from other public safety entities as well as all open records requests. The Records staff act as the primary receptionists for the Police Department by answering the general police department phone lines and greeting and assisting all people that walk into the Police Department lobby.

(1) Organization

The following chart outlines the organization of the Technology Services:



(2) Staffing and Unit Descriptions

The following table provides the personnel and major tasks of Technology Services staff.

Unit/Division	Cur r.	Auth.	Position	Unit Description
Administration	1	1	Manager	<ul style="list-style-type: none"> • Provides day-to-day oversight of the division, and direct daily oversight of Communication operations. • Manages the public safety radio system for the City of Lewisville including the subscriber inventory for all City Departments, FCC licensing, radio site and tower maintenance and inter-local interoperability with neighboring agencies. • Assist in the hiring of new staff for the division. • A total of 6 supervisors report directly.

Unit/Division	Cur r.	Auth.	Position	Unit Description
Communications	5	5	Supervisors	<ul style="list-style-type: none"> Responsible answering emergency and non-emergency phone lines, dispatch calls for service, and coordinate other department responses to incidents. This includes answering and dispatching for Fire / Emergency Medical Services. Responsible for inputting in warrants into the system and maintaining stolen or lost property logs. Call takers answer non-emergency phone calls and assist residents. Minimum staffing level is four from 3am to 11am and five from 11am to 3am., including the supervisor. The Fire Department may utilize a separate dispatcher if they have staff on light duty. This position does not account toward minimum staffing levels.
	3	5	Dispatcher II	
	13	18	Dispatch I	
	0	2	Call Taker	
Records	1	1	Supervisor	<ul style="list-style-type: none"> Responsible for the processing, uploading, reconciliation, and maintenance of all LPD records. This includes the review of all officer reports / citations and uploading to the RMS system. Responsible for maintaining the legal retention periods for all documents and the destruction of records that have past their retention dates. Responsible for the expungement or sealing of records as ordered by court authority. Provides case and incident reports to the public. Serves as the receptionist for the Police Department, including the public counter and switchboard. Each clerk is cross-trained to perform the majority of duties, which each focusing on specific areas (arrest reports, crash reports, etc.). Open Record Tech processes all open record request for the LPD and serves as the back up to the Supervisor.
	5.5	5.5	Clerk	
	1	1	Open Records Technician	

(3) Communications Schedule and Staffing

Communication staff is assigned to a total of four shifts. Each shift is a 10.5-hour shift and are the following: Days (0630 – 1700 hours); Mids (1030 – 2100 hours); Nights (2030 – 0700 hours); and Swing (1630 – 0300 hours). Currently, a total of six staff are assigned to Days, a total of five staff assigned to Mids, a total of seven staff assigned to Nights, and three staff assigned to Swing. Additionally, Communications utilizes part time staff and light duty staff when available.

Staff work 10-hour shifts and each staff member is assigned to work on Wednesday. Staff are either assigned to a Sunday – Wednesday or a Wednesday – Saturday work schedule. Wednesdays are utilized for training and meeting days.

Minimum staffing level is four from 0300 hrs to 1100 hrs; five from 1100hrs to 0300 hrs, including a supervisor, except on Friday and Saturday between 2100 and 0300 hours when they try to have a minimum staff of six. From May to September we implement a summer schedule, utilizing shifts that provide additional coverage on Friday, Saturday and Sundays by reducing the amount of staff on Wednesdays.

Appendix B – Analysis of the Employee Survey

As part of the Matrix Consulting Group’s study for the Lewisville Police Department, the project team distributed an anonymous survey to Department employees in order to gauge their opinions on a variety of topics relevant to the study. This survey generally asked three types of questions:

- **Respondent Demographic Questions:** Respondents were asked to indicate their current work assignment and level within the organization.
- **Multiple Choice Questions:** Respondents were presented with a number of multiple-choice questions, or statements where respondents indicated their level of agreement or disagreement with the statement.
- **Open-Ended Response Question:** Respondents were asked open-ended response questions, such as the greatest strengths and areas of improvement for the Department. Respondents were also given space to provide any additional thoughts and opinions about topics covered or related to the study.

The survey was distributed electronically to all 243 Lewisville Police Department employees in May 2019. A total of 139 responses were received, in varying degrees of completion, for an overall response rate of 57.2%.

1. Summary of Key Findings

While a more detailed analysis can be found in the sections below, the following bullet points summarize the key findings of the responses received to this survey:

- **Staffing**
 - There is a lack of sufficient sworn and civilian staff to provide expected services.
 - Police are effective in dealing with problems in the community and that improves the quality of life.
 - The level of training and supervision are appropriate, but the organizational structure and communication between divisions can improve.

- **Patrol**
 - The current approach to staffing jeopardizes officer safety, provides insufficient back-up and proactive time to address problems in the community.
 - District boundaries group the right beats together and do not split neighborhoods. However, respondents indicated that patrol workloads are unequal among different beats.

- **Criminal Investigations**
 - The Department's approach to investigating crimes and addressing proactive issues are inefficient and information sharing between patrol and investigations is inadequate.
 - Respondents' views on the effectiveness of current case management practices are split, with most feeling their caseload is unreasonable given the type of investigations they handle.

- **Jail**
 - Jail operations are viewed to be efficient. However, ancillary duties negatively impact jail operations.

- **Communications**
 - Despite inadequate staffing levels and technology, respondents felt that communications provide a high level of service to officers and the public
 - Current staffing levels are inadequate to cover employee leave and technology has not kept up with changing needs

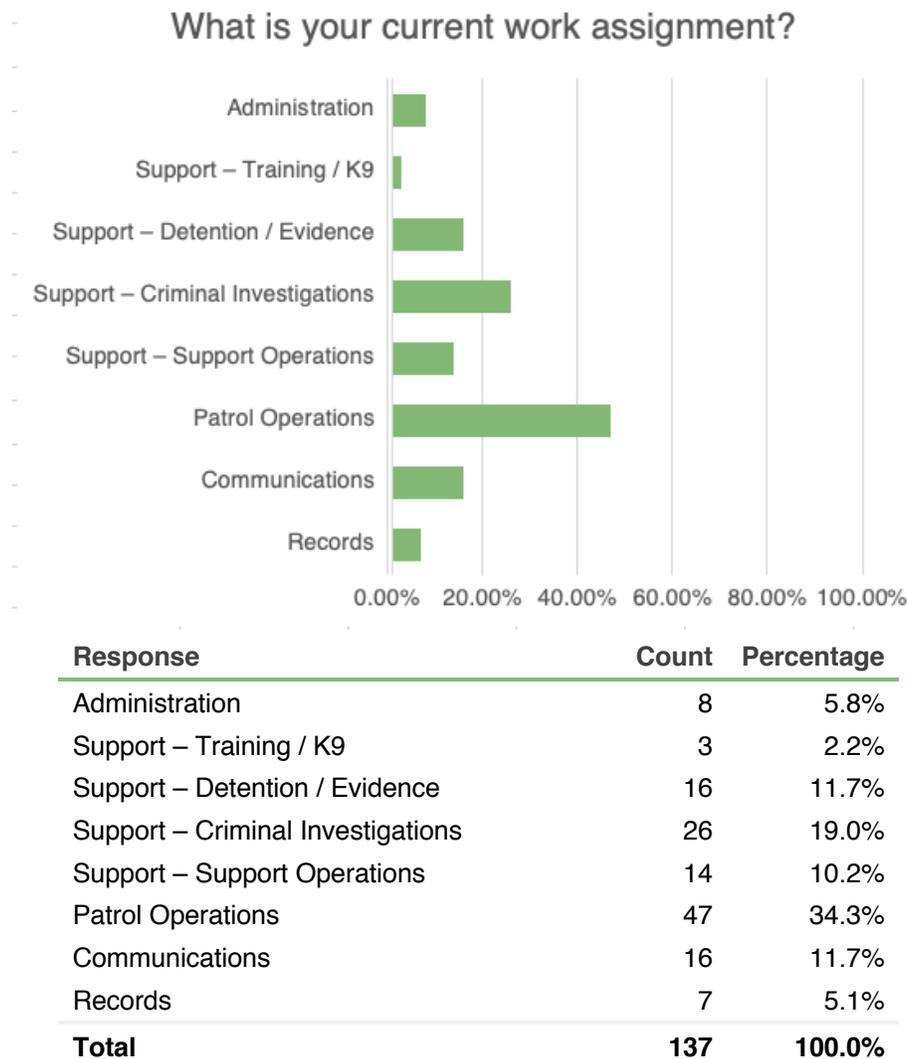
The following sections provide greater details on survey responses.

2. Survey Respondent Demographics

While the survey was anonymous, it asked respondents to indicate their current rank and work assignment. These responses are used later in the survey to show differences in opinion between different respondent groups. The following tables and charts show the responses received to each of these questions.

(1) Summary of the Work Function of Respondents.

The first question asked respondents about their current work assignment, specifically what subdivision they work for within the organization. The following chart and table detail the responses received.

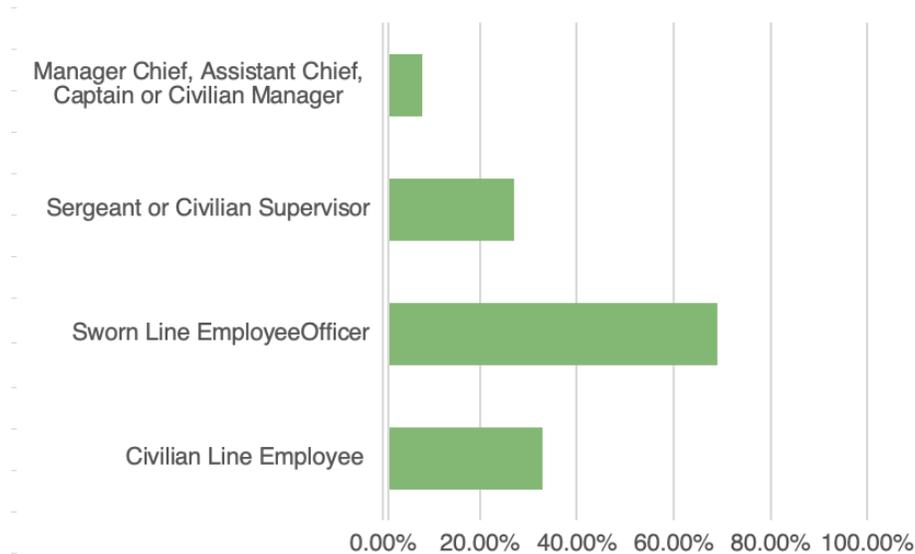


While responses will be sorted throughout this analysis, the response pool overwhelmingly reflects the opinions of sworn and line-level employees.

(2) About Half of the Respondents are Sworn Line Employees.

The second question asked respondents their current level within the organization. The following table and chart show the responses received.

What is your current work assignment?



Response	Count	Percentage
Manager Chief, Assistant Chief, Captain or Civilian Manager	8	5.8%
Sergeant or Civilian Supervisor	27	19.7%
Sworn Line Employee Officer	69	50.4%
Civilian Line Employee	33	24.1%
Total	137	100%

Half of all respondents (50.4%) are Sworn Line Employee Officers, and approximately a quarter (24.1%) are Civilian Line Employees.

3. Multiple Choice Questions

(1) Staffing

The next section of the survey asked respondents to indicate their level of agreement or disagreement with statements about the Police Department. The response options were “strongly agree” (SA), “agree” (A), “disagree” (D), and “strongly disagree” (SD), and “No Opinion” (N/O). Respondents could also opt out of responding to the statement, in which case they were not counted among the responses received for that statement.

(1.1) Respondents Believe Police Are Effective in Dealing with Problems in the Community and Improve the Quality of Life.

The following table shows responses received to statements about the Organization's effect on the community.

#	Statement	SA	A	D	SD	N/O
1	Our approach to policing improves the quality of life in Lewisville.	14%	64%	15%	1%	6%
2	We are effective in dealing with problems in the community.	9%	59%	26%	1%	5%

The heaviest concentration of responses to these statements fell in the "agree" and "strongly agree" categories.

- **Respondents feel that policing improves quality of life:** Respondents generally agreed (78%) with Statement #1, indicating that they believe the Organization's approach to policing improves the quality of life in Lewisville.
- Respondents generally agreed (68%) with Statement #2 that Police are effective in dealing with problems in the community.

(1.2) Respondents Generally Feel That the Department is Inadequately Staffed to Perform Effectively.

The following table shows responses received to statements about staffing within the Organization and specific units.

#	Statement	SA	A	D	SD	N/O
3	Once Castle Hills is annexed, we will have adequate staffing to accommodate their needs.	1%	3%	24%	68%	5%
6	The Department has the staff needed to perform safely and effectively in the field.	1%	8%	46%	39%	6%
7	Our Traffic Unit provides adequate proactive traffic enforcement functions.	10%	44%	27%	6%	14%
8	We have adequate specialized Crime Scene staff.	2%	15%	29%	42%	12%
10	We have the staff we need to properly investigate crime incidents in our community.	2%	15%	42%	33%	7%

11	We have the staff we need to properly address school-related problems in the community.	2%	44%	29%	8%	17%
13	We have the staffing resources to adequately serve the public records functions (e.g. report request, fingerprinting, etc.).	2%	22%	27%	16%	33%

Respondents generally feel that there is a lack of adequate staffing across the organization.

- Respondents indicated concerns over staffing levels to perform effectively in the field, specifically with the annexation of Castle Hills:** Respondents strongly disagreed (92%) with Statement #3, indicating that once Castle Hills is annexed, there will not be adequate staffing to accommodate their needs. This opinion is furthered enforced with a large majority of respondents strongly disagreeing (85%) with Statement #6, indicating they feel that the Department does not have the staff to perform safely and effectively in the field.
- Traffic is adequately staffed; however, Crime Scenes was identified as having a need for more staffing:** Majority of respondents agreed (54%) with Statement #7 and felt that the Traffic Unit provides adequate proactive enforcement; while some (33%) of the respondents disagreed. A large majority of respondents disagreed (71%) with Statement #8, indicating that they feel Crime Scene is understaffed.
- There is an inadequate level of staffing in Investigations, but proper levels for Schools:** Respondents strongly disagreed (75%) with Statement #10, indicating that there is an inadequate staffing level to properly investigate crime in the community. While many (44%) of respondents agreed with Statement #11 that there is adequate staffing to address school related problems in the community, many also (37%) disagreed.
- Respondents' opinions of Records staffing are split, with many feeling staff levels are adequate:** Respondents' feelings were split on Statement #13; while many (43%) disagreed with the statement and felt that staffing resources were inadequate to serve the public records function, almost a quarter (24%) of respondents agreed with the statement. However, one-third (33%) did not provide an answer.

(2) Organizational Support

Several statements in this section addressed training, communication and organizational structure and relationships. The table below summarizes the responses received to these statements.

#	Statement	SA	A	D	SD	N/O
14	I receive the appropriate training to do my job well.	20%	64%	11%	5%	1%
15	Communication between divisions is strong.	3%	19%	47%	27%	5%
16	Our organizational structure is appropriate for a department our size.	2%	36%	29%	21%	11%
17	We have sufficient supervision in my work unit.	15%	50%	24%	9%	2%

The following points examine the responses to these four statements at a more granular level:

- **Staff receive appropriate training to do their job well:** A large majority (84%) agreed with Statement #14, showing that staff feels they are appropriately trained to do their job well.
- **Communication among Divisions is in need of improvement:** A large majority (74%) disagreed with Statement #15; they feel that communication among divisions is not strong. Only 22% feel current communication is adequate.
- **Opinions on the appropriateness of the Department's structure are split:** Only 38% agreed with Statement #16 that the organizational structure of the Department is appropriate. However, one-half (50%) of respondents felt that the structure is inappropriate.
- **The current level of supervision is sufficient:** A majority (65%) agreed with Statement #17, indicating sufficient supervision within their work unit; however, one-third (33%) disagreed with the statement, indicating supervision is insufficient in their unit.

(3) Patrol

Several questions were asked of respondents who identified that they were assigned to Patrol

(3.1) It Takes Between One to Two Hours for Respondents to Write an Arrest Report, With an Average Time of Seventy-Six Minutes.

Respondents were asked about the average amount of time (in minutes) it took them to write an arrest report. The following table shows the responses received sorted from shortest to longest amounts of time, including the average amount of time spent.

<u>Number of Minutes</u>	<u>Count</u>
20	5
30	6
45	5
60	8
70	1
75	1
76	AVERAGE
90	8
105	1
120	10
150	1
300	1
TOTAL	47

As indicated by the chart above, the most frequent response received for the amount of time it takes to write an arrest report is 120 minutes (10 responses). The second most frequent response is 60 minutes (8 responses) and 90 minutes (8 responses). This indicates that it takes most respondents somewhere between 1 – 2 hours to write an arrest report, with an average of 76 minutes.

(3.2) It Takes Between 30 – 60 Minutes for Respondents to Write a Non-Arrest Report, With an Average Time of 56 Minutes.

The next question asked respondents about the average amount of time (in minutes) it took to write a Non-Arrest Report. The following table shows the responses received

sorted from shortest to longest amounts of time, including the average amount of time spent.

Number of Minutes	Count
1	1
20	1
25	1
30	8
35	2
45	8
56	AVERAGE
60	19
70	1
90	1
120	4
150	1
TOTAL	47

As indicated by the chart above, the most frequent response received for the amount of time it takes to write a non-arrest report is 60 minutes (19 responses). The second most frequent response is 45 minutes (8 responses) and 30 minutes (8 responses). This indicates that it takes most respondents somewhere between 30 – 60 minutes to write a non-arrest report, with an average time of 56 minutes.

(3.3) Respondents Reported Taking Between 90 – 120 Minutes Daily Performing Administrative Duties with an Average of 109 Minutes.

Respondents were asked the average amount of daily time (in minutes) spent performing administrative duties (e.g., vehicle check/fueling, on-shift court time, meetings, breaks, etc.). The following table shows the responses received sorted from shortest to longest amounts of time, including the average amount of time spent.

Number of Minutes	Count
15	1
20	2
25	1
30	1
45	1
60	5
70	2
75	2
90	13
109	AVERAGE
120	12
180	3
240	2
320	1
420	1
TOTAL	47

As indicated by the chart above, the most frequent response received for the amount of daily time spent performing administrative duties is 69 minutes (13 responses). The second most frequent response is 120 minutes (12 responses) and 60 minutes (5 responses). This indicates that it takes most respondents somewhere between 90 – 120 minutes to perform daily administrative duties, with an average time of 109 minutes.

(3.4) The Current Approach to Staffing Jeopardizes Officer Safety, Provides Insufficient Backup and Proactive Time to Address Problems in the Community

The following table shows the responses received to statements in the survey which focused on patrol staffing.

#	Statement	SA	A	D	SD	N/O
1	The amount of proactive time available to patrol allows us to address problems in the community.	0%	29%	42%	29%	0%
2	In patrol, there is typically adequate back-up units available.	0%	23%	54%	21%	2%
3	Our current approach to staffing ensures the safety of officers.	0%	23%	48%	25%	4%

6	Patrol resources are effectively deployed to meet the current law enforcement need of the City.	0%	31%	42%	23%	4%
4	Our response times to lower priority calls is appropriate.	0%	31%	42%	19%	8%
5	Our response times to high priority calls is appropriate.	2%	73%	13%	10%	2%

- Respondents indicated that there is not enough time to be proactive to address problems in the community and a lack of adequate backup:** Most (71%) of respondents disagreed with Statement #1, indicating that the amount of time available does not allow for staff to proactively address problems in the community. A strong majority (75%) of respondents disagreed with Statement #2, indicating a lack of adequate back-up units available in patrol. A majority (65%) disagreed with Statement #6, that patrol resources are effectively deployed to meet the current law enforcement needs.
- The current approach to patrol staffing does not ensure officer safety:** Most (73%) of respondents disagreed with Statement #3, that the current approach to staffing ensures the safety of officers; 23% agreed with the statement.
- Response times to high priority calls are appropriate; however, response times to low priority calls are not appropriate:** Respondents strongly disagreed (61%) with Statement #4, indicating that response times to lower priority calls are not appropriate. However, respondents agreed with Statement #5, that response times to high priority calls are appropriate

(3.5) District Boundaries Group the Right Beats Together and Do Not Split Neighborhoods; However, Respondents Indicated Patrol Workloads Are Unequal Among Different Beats.

The following table shows the responses received to statements in the survey which focused on beats.

#	Statement	SA	A	D	SD	N/O
7	District boundaries group the right beats together.	4%	52%	17%	10%	17%
8	Beat boundaries do not split neighborhoods into multiple districts.	15%	48%	8%	2%	27%

9 Patrol workloads are relatively equal among the different beats. 0% 13% 48% 31% 8%

- **District boundaries group the right beats together and do not split neighborhoods into multiple Districts:** A majority (56%) agreed with Statement #7, indicating respondents feel district boundaries group the right beats together, while 27% disagreed. A majority (63%) agreed with Statement #8, that beat boundaries do not split neighborhoods into multiple districts.
- **However, District boundaries result in unequal workloads:** Respondents strongly disagreed with Statement #9, that patrol workloads were relatively equal among different beats. Only 13% agreed that beat workloads are distributed evenly.

(3.6) Opinions Are Split on the Accuracy of Information Provided by Communications Staff, but Information Sharing Between Patrol and Investigations is Inadequate.

The following table shows the responses received to statements in the survey which focused on information sharing.

#	Statement	SA	A	D	SD	N/O
10	Information sharing between Patrol and Investigations is adequate.	0%	8%	38%	48%	6%
11	Communications staff accurately convey needed information on calls for service.	0%	54%	39%	15%	2%

4 Criminal Investigations Division

Several questions were asked of respondents who identified that they were assigned to Criminal Investigations.

(4.1) The Department’s Approach to Investigating Crimes Is Inefficient and Information Sharing between Patrol and Investigations is Inadequate.

The following table shows the responses received to statements in the survey which focused on efficiency, effectiveness and communication in Investigations.

#	Statement	SA	A	D	SD	N/O
1	Our approaches to investigating crimes are effective in addressing the problems in the City.	7%	30%	37%	15%	11%
3	We are effectively addressing proactive investigations (e.g. narcotics).	4%	33%	33%	15%	15%
4	Information sharing between Patrol and Investigations is adequate.	0%	30%	48%	19%	4%

- Most respondents indicated that the Department’s approach to investigating crimes is not effective:** A majority (52%) of respondents disagreed with Statement #1 that the Department’s approach to investigating crimes is effective in addressing the problems in the City, while one-third (30%) of respondents agreed their approach is effective.
- Opinion is split on whether the Department is effectively addressing proactive investigations:** A majority (48%) of respondents disagreed with Statement #2, that the Department is effectively addressing proactive investigations, while (37%) agreed.
- Most Respondents feel that information sharing between Patrol and Investigations is inadequate:** A majority (67%) of respondents disagreed with Statement #3, that information sharing between Patrol and Investigations is adequate; while some (30%) agreed that information sharing between divisions is adequate.

(4.2) Respondent’s Views on the Effectiveness of Case Management and Caseloads Are Split.

The following table shows the responses received to statements in the survey which focused on case management.

#	Statement	SA	A	D	SD	N/O
2	Our approach to case management is effective in prioritizing our caseloads.	0%	41%	33%	19%	7%
5	We are screening out cases with low solvability potential.	7%	52%	15%	4%	22%
6	I work a caseload which is reasonable given the type of investigations I handle.	4%	19%	19%	37%	22%

- Opinions on case management are split with some indicating current practices are effective, while most disagree:** The majority (52%) disagreed with Statement #2, indicating that the approach to case management is not effective in prioritizing caseloads. However, many (41%) agree with the statement and feel that the approach to case management is effective.
- Most respondents feel that cases with low solvability are screened; however most feel that their caseloads are unreasonable:** A majority (59%) agreed with Statement #5, indicating that cases with low solvability potential are being screened, while few (19%) disagreed. Some (24%) agreed with Statement #6, that the caseload they work is reasonable given the type of investigations they handle; however, a majority (56%) disagreed and felt that their caseload is unreasonable given the type of investigations they handle.

5 Jail

(5.1) It Takes an Average Time of 28 Minutes to Process a New Arrestee.

Respondents were asked the average amount of time (in minutes) spent to process a new arrestee. A total of 12 responses were received.

Number of Minutes	Count
15	1
20	2
25	1
28	AVERAGE
30	1
40	1
45	5
TOTAL	12

As indicated by the table, most respondents (5 responses) indicated taking around 45 minutes to process a new arrestee; the second largest response was 20 minutes (2 responses); with an average of 28 minutes.

(5.2) It Takes an Average Time of 15 Minutes to Release an Inmate from Custody.

Respondents were asked the average amount of time (in minutes) spent to release an inmate from custody. A total of 12 responses were received.

Number of Minutes	Count
5	1
7	1
10	4
14.75	AVERAGE
15	3
20	1
30	2
TOTAL	12

As indicated by the table, the most frequent response (4 responses) indicated taking 10 minutes to release an inmate from custody; the second largest response was 15 minutes (3 responses); with an average of 14.75 minutes.

(5.3) It Takes an Average Time of 46 Minutes to Facilitate Inmate Movement on A Daily Basis.

Respondents were asked the average amount of time (in minutes) spent to facilitate inmate movement (to court, off-site treatment, etc.) on a daily basis. A total of 11 responses were received.

Number of Minutes	Count
0	2
5	1
10	2
46	AVERAGE
60	2
90	4
TOTAL	11

As indicated by the table, the most frequent response (4 responses) indicated taking 90 minutes to facilitate inmate movement on a daily basis; the second largest response was shared by 0 minutes, 10 minutes, and 60 minutes with 2 responses each. The average of the time was 46 minutes.

(5.4) The Lewisville Jail Is Not Adequately Staffed According to Respondents.

The following table shows the responses received to statements in the survey which focused on the adequacy of jail staffing and supervision.

#	Statement	SA	A	D	SD	N/O
1	The Jail is adequately staffed.	0%	0%	50%	50%	0%
2	We have sufficient supervisors assigned to the jail.	33%	67%	0%	0%	0%
4	Our current approach to staffing ensures the safety of jail inmates.	0%	25%	58%	17%	0%
5	Our current approach to staffing ensures the safety of jail staff.	0%	17%	58%	25%	0%

- **The Lewisville jail is not adequately staffed:** All Respondents (100%) indicated some level of disagreement with Statement #1, indicating that they feel the jail is not adequately staffed.
- **However, it is sufficiently supervised:** All respondents (100%) indicated some level of agreement with Statement #2, indicating that they feel there is sufficient supervision assigned to the jail.
- **A large majority of respondents indicated jail staffing is inadequate to ensure the safety of inmates and staff:** Most respondents (75%) disagreed with Statement #4, indicating that they feel the current approach to staffing does not ensure safety of the jail inmates. A strong majority (83%) disagreed with Statement #5, that the current approach to staffing ensures the safety of jail staff.

(5.5) Jail Operations Are Efficient; However Ancillary Duties Negatively Impact Jail Operations.

The following table shows the responses received to statements in the survey which focused on jail processes and ancillary duties.

#	Statement	SA	A	D	SD	N/O
3	Our processes are efficient (e.g. intake, release, court, etc.).	8%	83%	8%	0%	0%
6	Ancillary duties (e.g., front window, fingerprinting, etc.) negatively impact jail operations.	58%	33%	8%	0%	0%

6. Communications Staff Perceived That There Was Inadequate Staffing and Technology, But That Communications Provides a High Level of Service to Officers and the Public.

Respondents were asked to respond to a number of statements about Communications.

#	Statement	SA	A	D	SD	N/O
1	We provide a high level of service to the officers we serve.	29%	65%	6%	0%	0%
2	We provide a high level of service to the public.	29%	71%	0%	0%	0%
3	Our current staffing levels are sufficient to cover employee leaves.	6%	0%	6%	88%	0%
4	Our communications technology has kept up with changing needs.	6%	12%	35%	47%	0%

- Communications provides a high level of service to officers and the public:** An overwhelming majority of respondents agreed with Statement #1, indicating they feel that Communications provides a high level of service to the officers served. Similarly, all respondents (100%) agree with Statement #2, that Communications provides a high level of service to the public.
- Current staffing levels are inadequate to cover employee leave:** An overwhelming majority (94%) of respondents disagreed with Statement #3, that current staffing levels are sufficient to cover employee leave.

- **Technology has not kept up with changing needs** A large majority of respondents (82%) indicated some level of disagreement with Statement #4, that communications technology has kept up with changing needs, while few (18%) agreed with the statement.

7. Open-Ended Response

The final section of the survey asked respondents to identify strengths and possible areas of improvements in a written open-ended response format. The following points outline the most common responses and themes identified and an analysis of the responses provided by participants.

(7.1) Respondents Identified Community, Teamwork, Leadership, and Loyalty/Integrity as Areas of Strength of the Lewisville Police Department.

The first portion asked respondents what they felt are the greatest strengths of the Lewisville Police Department. A total of 103 responses were received. Responses were categorized based on topic categories; those which were brought up multiple times are shown below:

Category of Strength	Count	Percent
Community	17	14%
Teamwork	16	13%
Leadership	15	13%
Loyalty/Integrity	14	13%
Communication	11	11%
Equipment	10	11%
Competitive Pay/Benefits	10	10%
Training	6	8%
Customer Service	4	6%
TOTAL	103	100%

The most common response themes among these answers indicate Community (17 responses), Teamwork (16 responses), Leadership (15 responses), and Loyalty/Integrity (14 responses) as the biggest strengths of the Department.

(7.2) Respondents Overwhelmingly Identified Staffing as the Biggest Area in Need of Improvement.

The second open response question asked survey participants what they thought the greatest improvement opportunities were for the Lewisville Police Department. A total of 109 responses were received. Responses were categorized based on topic categories; those which were brought up multiple times are shown below:

Areas of Improvement	Count	Percent
Staffing	32	48%
Leadership	8	12%
Technology/Innovation	7	11%
Morale	6	9%
Accountability	6	9%
Communication	5	8%
Cross Training	2	3%
TOTAL	66	100%

The most common response themes among these answers indicate Staffing (32 responses) as the largest area of improvement identified by survey respondents. The second largest area of improvement identified is Leadership (8 responses), and Technology/Innovation.