PATROL WORKLOAD ANALYSIS

MONTGOMERY COUNTY SHERIFF'S OFFICE



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MESSAGE FROM SHERIFF RAND HENDERSON



fiscally responsible expenditure of taxpayer dollars.

Communities across America including ours have long struggled with the question of "How many police officers do we need?" Too few leaves a community unprotected—too many wastes hard-earned taxpayer dollars.

Traditionally, the question of "how many" has been answered either with guesswork and cocktail-napkin math based upon the personal experience of police leaders or solely in the context of what was necessary to keep up with citizen-initiated calls for service.

Today, the question of "need" is far more complex than simple response to citizen-initiated calls for service. Communities not only expect the police to respond, but to reduce crime and take pro-active measures to prevent it in a manner that is procedurally just.

The trick then, is to strike a balance between a growing community, heightened public expectations and a

Today, I present to you an analysis of the Montgomery County Sheriff's Office patrol divisions' workload based on objective, quantitative data from January of 2016 until June of 2017. Based on this analysis, we can project how many sheriff's deputy positions are needed in order to protect both the community, your tax dollars and to meet your expectations through the agency's strategic objectives.

Sincerely,

Rand Henderson

Sheriff, Montgomery County

EXECUTIVE SUMMARY

The Sheriff's Office requires an addition of 81 patrol deputy positions (exclusive of contracts) over the next four years to match county growth and meet the agency's strategic goal of reducing crime and the fear of crime. This figure does not include supervisors, detectives or administrative support functions.

This workload analysis was completed in accordance with the Montgomery County Sheriff's Office Strategic Plan for 2017 to 2020. A workload analysis is the most reliable means of determining peace officer requirements for an agency and preferred over the officer to population ratio or "per capita" approach.

The workload analysis measured the Sheriff's Office patrol function at the deputy level (line-level); it excluded supervisors and specialty deputies (such as the traffic and livestock unit). The scope of the workload analysis examined data in a historical context as well as within a framework of the agency's anticipated transition from a traditional policing model (reactive and random) to a COMPSTAT model (targeted and data-driven) supported by a philosophy of community policing.

The workload analysis used the Patrol Allocation Model (PAM) objective of attaining staffing so that 50 percent of a patrol deputy's time was considered "unobligated." Achieving a staffing level that affords 50 percent unobligated time is critical in the transition to COMPSTAT. COMPSTAT, supported by a philosophy of community policing, requires a more significant and deliberate investment in time than traditional, purely reactive policing.

The analysis examined 18 months' worth of data from January 2016 up to and including June of 2017. The analysis collected and calculated four general categories of patrol deputy workload. Actual data was available for citizen-initiated activities (calls for service) and officer-initiated activities (police-initiated enforcement activities) during the analysis period. The analysis used payroll records to calculate the actual availability of deputies

during the period examined. The analysis allocated 25 percent of the total actual availability for the third category of patrol deputy workload, administration activities (such as report writing). The analysis calculated unobligated time, the fourth category, by subtracting citizen-initiated activities, officer-initiated activities and administrative activities from the actual availability during the period examined.

Patrol staffing in the northeast and east part of the county are of the most concern with citizen-initiated call for service demand routinely nearing or exceeding average staffing capacity during daytime hours. COMPSTAT and community policing would be a significant challenge in this area without the funding of additional positions. Patrol staffing in the southern, southwestern and northwestern portions of the county experience periodic constraints and are of concern. While COMPSTAT and community policing would be more feasible than in the northeast and east, without additional positions, citizen-initiated call for service demand would compete intermittently enough as to put intended crime and fear-reduction outcomes in jeopardy. The Woodlands Township is adequately staffed by means of a contract with the Sheriff's Office.

Regardless of the funding of positions, the Sheriff's Office is experiencing the effects of a nationwide law enforcement "recruiting crisis." There is a national shortage of eligible and willing candidates entering the law enforcement profession. This makes it more difficult for the Sheriff's Office to fill vacancies than it has been in previous years or to re-deploy patrol deputies from "more healthy" areas to "less healthy" areas.

With the funding of 81 positions, the Sheriff's Office will implement COMPSTAT supported by a philosophy of community policing at an incremental level. The anticipated return is lower crime and the reduction of fear of crime.

	Northeast	East	South	Northwest	Southwest	Woodlands
Current positions	22	29	23	18	20	9
Contract positions	0	0	7	4	0	76
Positions required	45	59	37	22	30	n/a
Positions to add	23	30	14	4	10	0

INTRODUCTION

The Montgomery County Sheriff's Office Strategic Plan for 2017 to 2020 identifies three overarching agency goals. They are to reduce crime and the fear of crime, provide high-quality professional service and prepare for future population growth and emerging crime trends (Montgomery County Sheriff's Office, 2017).

Each goal includes an objective supported by four to six strategies. The leadership team identified a workload analysis as one of several strategies towards the objective of matching agency growth with population growth by 2020 to achieve the final of these three goals and support the first (Montgomery County Sheriff's Office, 2017).

In addition, the Commission on Accreditation of Law Enforcement Agencies (CALEA) recognizes a workload analysis as a "best practice" and requirement for accreditation (CALEA Standard Titles, n.d.).

More importantly, a comprehensive analysis allows the Sheriff's Office to articulate need or lack thereof and ultimately allocate the right amount of patrol deputies at the right time and in the right areas to combat emerging crime trends and meet community expectations.

METHODS OF DETERMINING AGENCY PEACE OFFICER REQUIREMENTS

TRADITIONAL METHODS

There are four recognized methods of answering the question, "How many police officers do we need?" Of these methods, the workload analysis provides the most accurate answer.

OFFICER TO POPULATION RATIO (PER CAPITA APPROACH)

The Federal Bureau of Investigation publishes data on the number of peace officers per 1,000 citizens in U.S. cities, counties, states and regions. This data is often used for comparison and to draw conclusions about how many peace officers a particular community should or should not have (Wilson & Weiss, 2012). The national average of peace officers to 1,000 citizens, which is typically around 2.5, is occasionally purported as an objective or even a "national standard."

Matarese and Wieczorke, in an article for the International City/County Management Association (ICMA) state, "There are no such standards. Nor are there 'recommended numbers of officer per thousand." The authors also reference confirmations of this myth by the International Association of Chiefs of Police (IACP) and Joseph Brann, former director of the Dept. of Justice's Community Oriented Policing Service Office (Wieczorek & Matarese).

The per capita approach as a method for determining police staffing has distinct disadvantages. These include failing to account for population characteristics such as density and size, particular crime problems, agency structure and philosophy, geographical area and the overall context of the community (Wilson & Weiss, 2012). Finally, and most importantly, a per capita approach fails to identify when and where an agency should deploy peace officer positions, only that a deficiency does or does not exist.

MINIMUM STAFFING

Smaller agencies or agencies that operate on collective bargaining agreements may use the minimum staffing approach. This method consists of police leadership estimating, based upon their personal training and experience, along with perceived community expectations, the minimum number of peace officers that should be on duty at any given time. The minimum staffing approach does not take into account any data or may only consider raw data anecdotally and is subject to potentially high over or under estimation (Wilson & Weiss, 2012).

AUTHORIZED LEVEL

Some agencies may defer to an authorized level approach. This approach "uses budget allocations to specify the number of officers" (Wilson & Weiss, 2012). In effect, it answers the question "How many police officers do we need?" with "As many as we can afford" (Shane, 2009). The authorized level therefore reflects a maximum amount of personnel funded, often, independent of actual workload. In addition, particularly for large agencies, it may create the perception an agency is always understaffed since the maximum number of positions that can be afforded will likely never be filled due to routine turnover and retirements (Shane, 2009).

WORKLOAD ANALYSIS

A workload analysis is a data-driven approach that can both identify current staffing deficiencies (if any) and project future needs based on the current citizen-initiated call for service demands. This method is preferred and provides the best estimations based on quantitative analysis.

There is no universally accepted method for conducting a workload-based approach. This is possibly due to the incorporation of environmental specific factors inherent in the citizen-initiated call for service demands. In effect, the methodology will reflect the specifics of an agency and community (Wilson & Weiss, 2012).

One disadvantage to conducting a workload analysis is that it cannot account for work ethic, time management or efficiency (or lack thereof) inherent in agency procedures or in individual peace officers, however, it would seem the larger the population of data collected, the more individual peace officer outliers would be minimized (Wilson & Weiss, 2012).

Despite this disadvantage, "allocation models based on actual workload and performance objectives are preferable to other methods that might not account for environmental and agency-specific variables" (Wilson & Weiss, 2012).

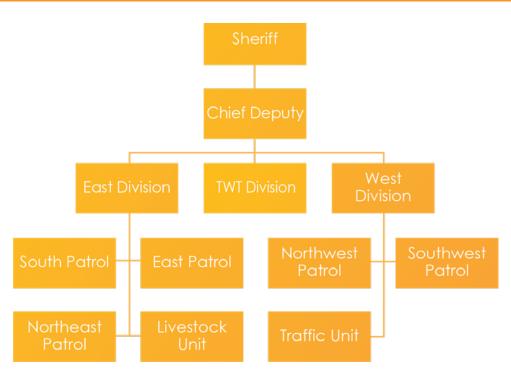
THE RESPONSE TIME MYTH

Decades ago, police agencies evaluated efficiency, and to some degree staffing, a great deal on response timethat is, the amount of time it took for a police officer to arrive on the scene of a crime or incident. The 1970s brought about the belief that crime was a symptom of much deeper socioeconomic problems such as poverty. Since, apparently, police had no significant control over such socioeconomic problems, a focus and emphasis on quick police response intensified—the idea that the faster an officer arrived on scene, the higher the chance he or she could make an arrest or solve the crime. Police agencies therefore began to focus on making sure there were enough officers to reduce response times to as little as possible—a historical "throwing bodies at problems." The concept that a quicker response time leads to a better chance of arrest, a better chance of solving a crime or is indicative of "good" policing has been seriously questioned in recent years, since only a very small portion of citizen-initiated calls for service involve a crime "in progress." (Measuring the Performance of Law Enforcement Agencies, 2003; Lum & Koper, 2017; Matarese, 2017).

SHERIFF'S OFFICE PATROL FUNCTION

The Montgomery County Sheriff's call-responsive Office is approximately 83 percent of the county's population and 89 percent of the geographic surface (Montgomery area County Sheriff's Office, 2017). City police departments are call-responsive their municipality Montgomery County Constables are call-responsive to contract areas such as the Imperial Oaks subdivision (South County) and the Magnolia and Willis Independent School Districts.

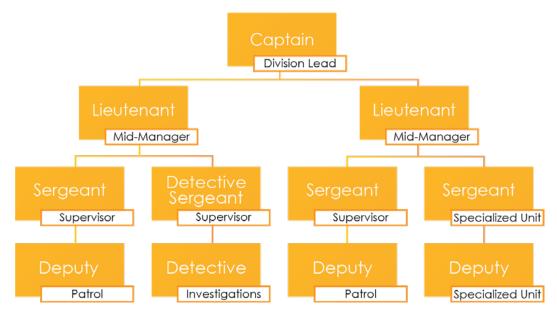
The Chief Deputy oversees the patrol function. Prior to January 1, 2017 there were two patrol divisions. On January 1, 2017,



leadership divided patrol functions outside of The Woodlands into two divisions, however, this only involved the supervisory structure and did not affect the administrative (geographic) boundaries within the agency.

After January 1, 2017, leadership aligned the Traffic Unit under the West Patrol Division and re-aligned 24 detectives among each patrol division. In February of 2017, Montgomery County Constables Offices transferred the livestock function to the Sheriff's Office; leadership aligned the newly established Livestock Unit under the East Patrol Division.

Patrol functions by order of increasing responsibility (sometimes referred to as the "chain of command") begin at the deputy and detective level.



SCOPE OF WORKLOAD ANALYSIS

The unique structure of Texas law enforcement agencies, in addition to the structure in Montgomery County where some agencies operate on different Computer Aided Dispatch (CAD) systems and many different Records Management Systems (RMS) makes it very difficult, if not impossible to synthesize the citizen-initiated call for service demand for all law enforcement agencies in any given single geographic area (among other factors).

This patrol workload analysis examined activities solely for the Sheriff's Office. While the Sheriff's Office is the largest call-responsive agency for the majority of the county, it is important to acknowledge our law enforcement partners. Constables, state law enforcement and city police departments are important contributors to public safety. A loss of patrol capabilities of any of our law enforcement partners would likely have an impact, in some cases severe, to public safety and Sheriff's Office patrol operations.

The analysis further examined historical data in the framework of an anticipated transition from the traditional model of policing (which is reactive, random and frequently based on the "gut feeling" of police administrators) towards a strategy of COMPSTAT supported by a philosophy of community policing as described in the Sheriff's Office Strategic Plan for 2017 to 2020.

COMPSTAT means deliberate, coordinated interventions (tactics) implemented by a mid-manager in response to crime hot spots or historical problem areas with the desired outcome of reducing crime or the fear of crime (Montgomery County Sheriff's Office, 2017). Interventions are focused on methods and tactics validated through academic research as having a correlation to a quantifiable outcome (such as reduction of burglaries). In other words, targeted tactics that are proven and *likely* to have the desired outcome when replicated in Montgomery County.

Time and flexibility are critical to COMPSTAT and community policing. While a deputy may be able to complete an average citizen-initiated call for service in a relatively short amount of time, say 15 to 25 minutes, and during that time both resolve the immediate issue and provide high-quality service to a citizen, COMPSTAT interventions and community policing require a more significant and deliberate investment in time. This investment may range from a 15-minute directed patrol

of a problem area (not including travel) scheduled at a time that is data-driven to counter a specific threat, to several hundred hours expended in a problem-oriented policing project with the community. These investments in time, effort and proper execution have shown, through research, to correlate to positive outcomes including crime and fear reductions (Lum & Koper, 2017).

Thus, meaningful interventions and community policing is contingent on time and flexibility created through staffing. In other words, if only one deputy is available, the citizen-initiated call for service becomes the priority where and when it occurs; the time which remains is randomly occurring and typically impractical for all but the most superficial COMPSTAT interventions and community policing which are not likely to yield positive outcomes.

In the same situation, with three deputies available, one deputy handles the citizen-initiated call for service, one remains unobligated and available and one devotes time towards meaningful interventions and community policing without the potential for being pulled away to answer a citizen-initiated call for service. This time and flexibility enables proper execution with the meaningful results of reduced crime and fear of crime.

METHODOLOGY

This patrol workload analysis was based on a methodology recommended by Jeremy M. Wilson and Alexander Weiss in A Performance-Based Approach to Police Staffing and Allocation, funded and published under a grant from the Office of Community Oriented Policing Services, U.S. Department of Justice. In particular, Weiss possesses significant experience in conducting workload analysis for law enforcement agencies throughout the United States (Alexander Weiss Consulting, n.d.).

Wilson and Weiss recommend examining on-duty activities of peace officers within the framework of four categories: citizen-initiated activities (calls for service), officer-initiated activities (police-initiated enforcement activities), administration activities (such as report writing) and unobligated time during which an officer may engage in activities such as COMPSTAT interventions and community policing (Wilson & Weiss, 2012).

Wilson and Weiss recommend a six-step method for conducting a workload-based analysis:

- Examine the distribution of calls for service by hour of day, day of week and month
- 2. Examine the nature of the calls for service
- 3. Estimate time consumed on calls for service
- 4. Calculate an agency shift-relief factor
- 5. Establish performance objectives
- 6. Provide staffing estimates

This method was modified in accordance with Wilson and Weiss's contention that "there is no universally-accepted method for conducting a workload-based assessment" and tailoring the method will allow for consideration of environmental and agency-specific variables along with the integration of the analyst's experience (Wilson & Weiss, 2012). The modified method included seven steps:

- 1. Conduct an initial analysis and establish a performance objective
- 2. Examine the distribution of calls for service by hour of day, day of week and month
- 3. Examine the nature of the calls for service
- 4. Calculate the time consumed on calls for service (includes agency shift-relief factor)
- 5. Analyze and interpret the data
- 6. Re-evaluate performance objectives
- 7. Providing staffing projections

The International Association of Chiefs of Police (IACP) developed an alternative performance objective model

(Wilson & Weiss, 2012). This model was rejected because, being more than three decades old, it allowed for only three categories of on-duty peace officer activity vice four. In addition, a review of recently completed law enforcement workload analysis for other agencies across the United States determined the PAM was more widely used.

INITIAL ANALYSIS AND PERFORMANCE OBJECTIVE

Following the assumption of office by Sheriff Rand Henderson in January 2017, Chief Deputy Kenneth Culbreath conducted an initial patrol workload analysis. This analysis was broad in nature using a Microsoft Excel worksheet produced by Jon M. Shane of Progress Consulting, LLC available through his book *What Every Chief Executive Should Know: Using Data to Measure Police Performance* (Shane, 2009). This worksheet used call for service volume in conjunction with recommended estimates for average minutes consumed per calls, average minutes spent writing reports, meal breaks, etc.

After careful consideration of the demand for citizeninitiated calls for service, the potential for county growth and the need for a strategic transformation of the agency, Sheriff Henderson proposed 50 percent of a patrol deputy's on-duty time be unobligated and available for COMPSTAT and community policing activities.

Sheriff Henderson based this performance objective on the Patrol Allocation Model (PAM), sometimes referred to as the Patrol Allocation Manual developed by William W. Stenzel (and referenced by Wilson and Weiss), which advocates for a 50 percent performance objective (Wilson & Weiss, 2012).

Based upon the initial patrol workload analysis and the performance objective, Chief Deputy Culbreath calculated a need of 77 patrol deputy positions. Sheriff Henderson presented this figure to the Montgomery County Commissioner's Court in time to initiate the calendar year 2018 budget planning process in March of 2017.

This stage of the effort reflected reliable, though not detailed information due to the initiation of the budget cycle. In other words, the Sheriff's Office believed an additional 77 patrol deputy positions were required, however, where, when and how the agency should deploy those positions had not yet been determined.

DISTRIBUTION OF CITIZEN-INITIATED WORKLOAD

Wilson and Weiss recommend an agency analyze no less than one-year of patrol workload data. In addition, they recommend an agency analyze the data by hour, day of week and month.

The Montgomery County Sheriff's Office implemented an integrated Computer Aided Dispatch (CAD), Records Management System (RMS) and Jail Management System in November of 2015. This system is a SQL database. This database allows the agency to extract information through use of SAP Crystal Reports software.

The Sheriff's Office extracted data from the CAD and RMS using an SAP Crystal Report for the period of January 2, 2016 up to and including June 30, 2017. This constitutes 39 two-week pay periods, 18 months, 546 days and 13,104 hours. This data set is comprised equally of 78 of each day of the week (i.e., 78 Mondays, 78 Tuesdays, 78 Wednesdays, etc.).

The data was limited to Sheriff's Office patrol functions. The data excluded other Montgomery County law enforcement partners such as municipal police officers and deputy constables and any corresponding citizen-initiated or officer-initiated activity they responded to or completed.

The data accounted for the total amount of time a Sheriff's Office deputy spent on a citizen-initiated call for service or an officer-initiated activity (such as a traffic stop). If a Sheriff's Office deputy operated jointly with a non-Sheriff's Office law enforcement officer, the data was limited to solely the time expended by the Sheriff's Office deputy.

Next, the Wilson and Weiss method calls for estimating time consumed on activities.

Wilson and Weiss based their method upon the premise that *most* agencies only have data for call for service volume (for instance, *n* number of calls per year). It also assumes most agencies do not readily have access to the number of officers who spent time on a call (the agency is not able to determine whether there was one officer or five on a call without a record-by-record examination). In other words, at a glance, most agencies can only tell an activity happened, but not how many officers spent time on the activity and not how long each officer spent on the activity. Due to these limitations, most agencies must estimate time consumed on activities.

The Sheriff's Office, however, is able to calculate the actual time consumed on each call for all officers who

responded. In other words, the Sheriff's Office can determine how many activities occurred, how many deputies responded and how much time each of those deputies spent on the activity.

The extraction captured two of the four Wilson and Weiss recommended on-duty categories: citizen-initiated calls for service and officer-initiated activity.

Through use of a SAP Crystal Report formula, each entry calculated the total amount of hours and minutes expended on each activity by noting the time the CAD showed the Sheriff's Office "Dispatched" to the activity (thus including the amount of time expended traveling to the activity) or "On-scene" if the activity was officer-initiated. The formula then noted the time the Sheriff's Office deputy "Cleared" the activity by either inputting the clearance into their in-vehicle computer or notifying the dispatcher they had ceased all immediate activities related to the call.

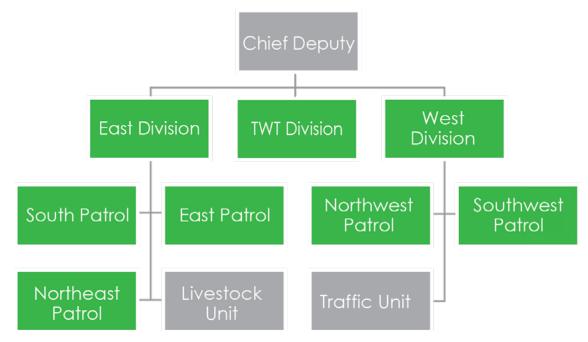
The formula subtracted the "Dispatched" or "On-scene" time from the "Cleared" time in order to obtain a modality, which is a single number indicating the amount of hours and minutes spent on a given entry. For instance, a modality of "1.25" represents a time of one hour and 15 minutes.

The data was delineated by such elements as the nature of the activity, the address, the deputy and whether or not the activity was initiated by a citizen or initiated by the officer (for example, a traffic stop).

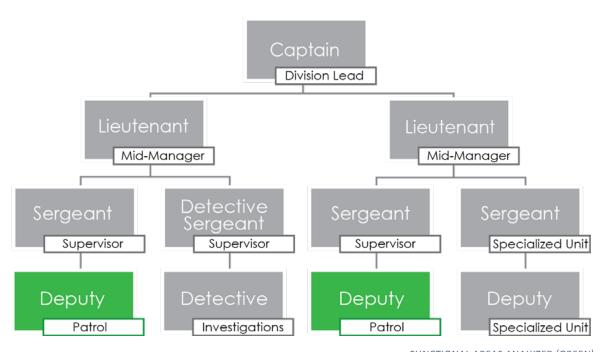
The Sheriff's Office then converted the data from SAP Crystal Reports software into a Microsoft Excel spreadsheet. This resulted in more than half a million entries over 18 months for the entire Sheriff's Office patrol force.

The Sheriff's Office semi-automatically sanitized the data over a period of six weeks.

Data analyzed was only for patrol deputies. It did not include other patrol functions such as supervisors, livestock deputies, traffic deputies or division detectives.



FUNCTIONAL AREAS ANALYZED (GREEN)



FUNCTIONAL AREAS ANALYZED (GREEN)

NATURE OF CITIZEN-INITIATED WORKLOAD

The Sheriff's Office extracted and sanitized the data in a manner that permits examination of the nature of citizeninitiated calls for service.

It is important to note, in the context of this analysis, the nature of the citizen-initiated workload is not indicative solely of the frequency of occurrence.

Some citizen-initiated calls for service may require more than one deputy due to circumstances such as the number of investigative tasks that must be accomplished or for officer safety. For example, a request for information from a citizen who telephones the Sheriff's Office and requests to speak to a patrol deputy about a concern or question will typically only require a single deputy to make a phone call and expend only a few minutes of time. Twelve requests for information multiplied by five minutes of time each equals one hour of demand. In the same manner, the investigation of a single burglary may require between 20 minutes to an hour and may be completed by more than one deputy. One burglary scene that requires two deputies to process (at the same time) for a total of 30 minutes each also equals one hour of demand. Though each nature of citizen-initiated demand is equal to one hour, the data reflects a combination of frequency of occurrence as well as circumstances such as the complexity or officer risk involved.

Conclusions about the frequency of crime, safety or quality of life are inappropriate based upon this data.

TIME CONSUMED

Recall that Wilson and Weiss recommend examining on-duty activities of peace officers within the framework of four categories: citizen-initiated activities (calls for service), officer-initiated activities (police-initiated enforcement activities), administration activities (such as report writing) and unobligated time during which a deputy may engage in activities such as COMPSTAT interventions and community policing.

Computer Aided Dispatch (CAD) does not account for unobligated time (i.e., the amount of time a deputy is eating a meal, taking a restroom break, running radar on the side of the road, etc.).

CAD accounts for administrative time in a limited manner. Some activities can be tracked through the CAD system, though consistency is problematic and a true reflection of administrative time is difficult to calculate since CAD entries are not either practical or feasible for many routine administrative activities such as checking e-mails, attending meetings, reading correspondence, making business-related telephone calls to co-workers, etc.

This analysis assumed a 25 percent allowance (one quarter of the total time available) dedicated to administrative duties (see limitations).

Next, the Wilson and Weiss method calls for calculating the agency shift relief factor. The shift relief factor is the difference between the maximum amount of time a patrol deputy could possibly work or be available (without taking vacation, sick time, training, etc.) and the time he or she actually is available. The Wilson and Weiss agency shift relief factor was incorporated in determining the actual availability and does not need to be calculated separately for this analysis.

Actual availability was calculated using payroll records (sick time, funeral leave, vacation, national guard/reserve call-ups, etc.) whenever possible and delineated by area. Specialty duty (for example, augmentation to SWAT, Crisis Negotiation Team training and Honor Guard activities) was calculated using archived agency duty schedules. Vacancy rates were averaged using the number of positions vacant on the first of each month in each area. Finally, Texas Commission on Law Enforcement (TCOLE) requires every peace officer complete a minimum of 40 hours of training every two years. The amount of training hours for each deputy was estimated by using 30 hours per deputy (75% of the 24-month requirement being as the analysis covered a period of 18 months). It is possible this is a conservative estimate as TCOLE peace officer certifications require more than 40 hours to achieve.

Ultimately, the amount of time for each of the on-duty activities (and thus time consumed) was calculated in the following manner:

Patrol Deputy Positions x On-duty Hours Possible in Analysis Period

= Availability Hours

Availability Hours - (Authorized Absences + Training + Vacation, etc. Hours)

= Actual Availability Hours

Actual Availability Hours x 25% (Allowance for Administrative Activity)

= Administrative Activity Hours

Actual Availability Hours - (Citizen-initiated Activity + Officer-initiated Activity + Administrative Activity)

= Unobligated Hours

DATA ANALYSIS AND INTERPRETATION

Raw data by itself cannot answer social science questions. The data must be examined and interpreted for contextual meaning. For instance, most police agencies in the United States experience a decrease in citizen-initiated calls for service between 12 a.m. and 6 a.m. At face value, this would indicate peace officers have increased time (in some cases significant increased time) to perform community policing. The reality, of course, is that most of the community is asleep between 12 a.m. and 6 a.m. and unwilling to voluntarily engage law enforcement—thus, while the data shows time to spare, in reality that time is of limited value for activities other than enforcement activities for that small portion of the population that is awake.

PERFORMANCE OBJECTIVE RE-EVALUATION

Proper performance objectives, in the case of this analysis, percentage of unobligated time, cannot be established in a vacuum. They must be set and adjusted in the context of community expectations, sentiment and factors such as the capacity to expand and grow.

STAFFING PROJECTIONS

Staffing projections were calculated in the following manner:

Where n = the desired performance objective expressed in a decimal (for instance, 50% is .5)

1.00 - n - .25 (Allowance for Administrative Activity)

= Percentage of Time Deputies Obligated

Total Hours Deputies Currently Obligated + Percentage of Time Deputies Obligated

= Total Projected Hours of Deputy Availability Required

Total Projected Hours of Deputy Availability Required + Average Actual Availability per Deputy

= Number of Deputy Positions Required

LIMITATIONS

This analysis cannot account for work ethic, time management or efficiency (or lack thereof) inherent in agency procedures or in individual patrol deputies.

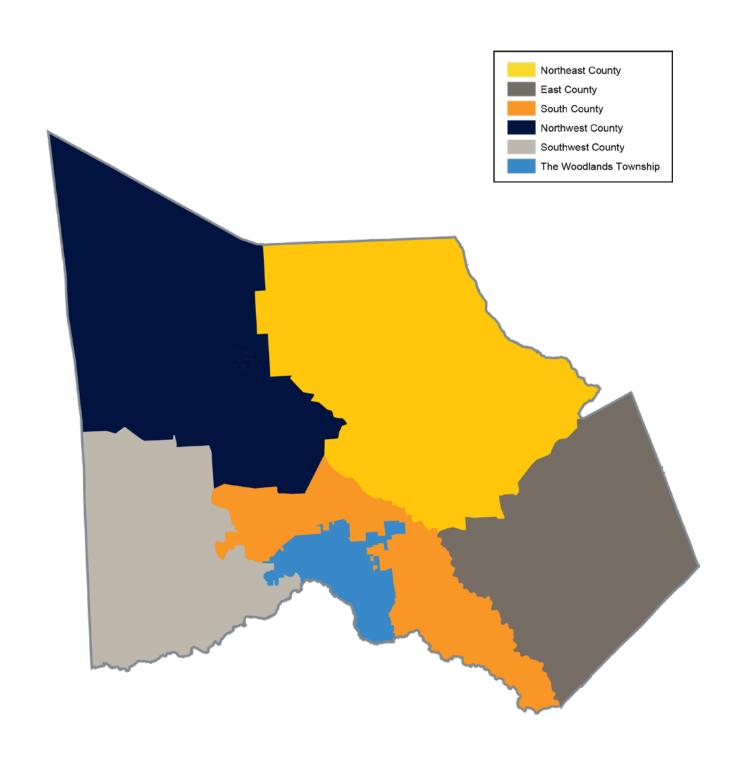
This analysis assumed a 25 percent allowance (one quarter of the total time available) dedicated to administrative duties. This allowance was based on administrative time being one of four categories of activity identified by Wilson and Weiss, a sampling of report writing modality extracted when the agency began to track it on January 1, 2017 and anecdotal evidence from multiple deputies and the author's experience as a patrol deputy. This estimation represents the single most limiting factor of the analysis—however, will likely persist in future workload analysis. Essentially, it is impractical to require deputies to track and document every possible administrative task they complete from checking e-mails to making routine phone calls to say nothing of the potential for inaccuracy.

Data collected is subject to entry error at the user-end. For instance, if a deputy or dispatcher forgets to "Clear" a call within a timely manner (for instance, 10 or 15 minutes), that error will not be detectable. Large errors (those exceeding eight hours) were semi-automatically resolved; smaller errors may persist.

Projections are based on static citizen-initiated call for service demand. In other words, projections of the number of patrol deputy positions needed are based on the citizen-initiated call for service demand as it existed during the analysis period. Without a doubt, there will be an increase in citizen-initiated call for service demand as the county grows over the next four years. While the tendency might be to increase the citizen-initiated call for service demand in proportion to the increase in population, this is undesirable for several reasons. First, while population is likely a significant factor in citizeninitiated call for service demand, many other potentially significant factors such as weather, new highways and roads and new businesses also play a role. These factors cannot be accounted for in Computer Aided Dispatch (CAD) or Records Management System (RMS) data. Secondly, since the period of analysis is only 18 months, there is a potential that simple variances may be unintentionally interpreted as trends.

Woodlands Division calculations and projections for unobligated time are made as if deputies had been working 12-hour shifts at the time of the analysis. Woodlands deputies operated on an eight-hour schedule, five days on duty and two days off duty from January 2016 up to and including May of 2017. In June of 2017, Woodlands deputies transitioned to 12-hour shifts. Conducting an analysis and drawing conclusions based upon an eighthour schedule, though possible, is of extremely limited value considering the division recently transitioned to 12-hour shifts and will remain on 12-hour shifts in the future. As the goal of the patrol workload analysis is to not only examine data in a historical context, but to provide a means to project future need, the data is presented as if Woodlands deputies were operating on a 12-hour shift throughout the whole analysis. While this is not methodologically desirable, the alternative is to dismiss the entire effort due to this single limitation. Data on citizen-initiated calls for service and officerinitiated activity is unaffected.

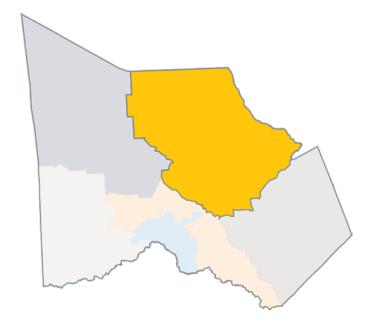
ADMINISTRATIVE BOUNDARIES



NORTHEAST COUNTY

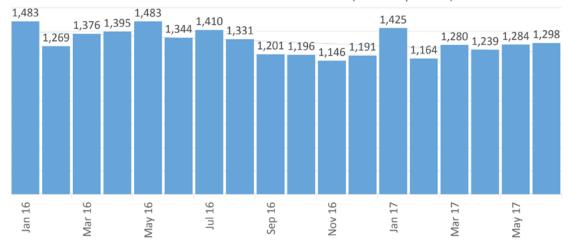
WILLIS, CUT AND SHOOT AND SECURITY

The Montgomery County Sheriff's Office is call-responsive for all unincorporated areas in Northeast County. Law Enforcement partners, such as City of Willis Police Officers, respond to priority citizen-initiated calls for service in unincorporated areas close to their city during times when Sheriff's Office deputies are unavailable, however, they do so as a courtesy and are not required to assist. Data factors-out their degree of involvement so that it neither exaggerates nor minimizes Sheriff's Office data.



DISTRIBUTION OF CITIZEN-INITIATED WORKLOAD

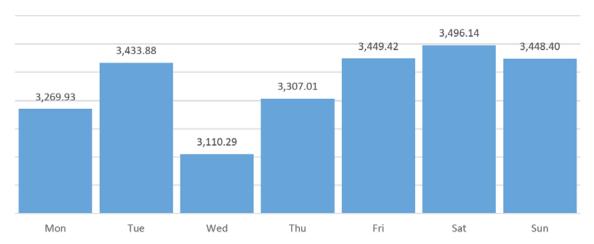
Citizen-initiated call for service demand (hours expended)



MONTGOMERY CO. SHERIFF'S OFFICE NORTHEAST COUNTY, JAN 16 TO JUN 17

While the total hours expended in response to citizeninitiated calls for service appears to be trending slightly downward, it is critical to note there is no historical data to examine to determine whether this is an actual trend or simply a variance.

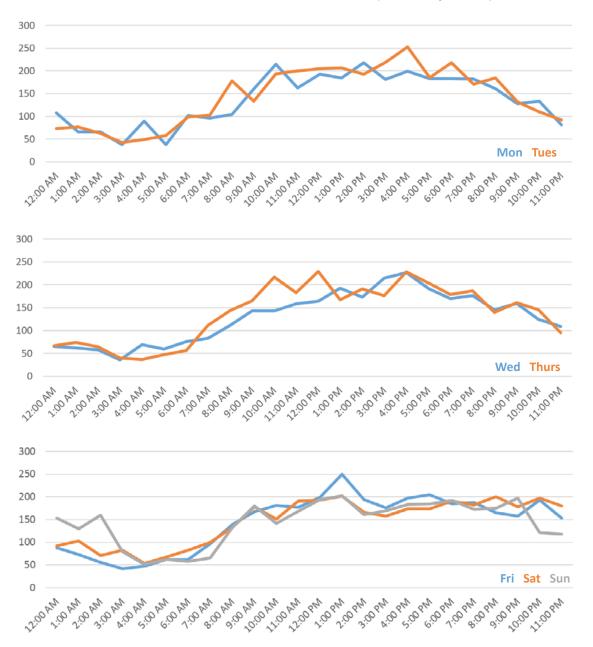
Total citizen-initiated call for service demand (hours expended)



MONTGOMERY CO. SHERIFF'S OFFICE NORTHEAST COUNTY

Saturday required the most response to citizen-initiated calls for service, though Friday, Sunday and Tuesday had demands close to Saturday.

Citizen-Initiated Call For Service Demand (Hours Expended)



MONTGOMERY CO. SHERIFF'S OFFICE NORTHEAST COUNTY, JAN 16 TO JUN 17

Sheriff's Office patrol deputies in Northeast County operate on a 12-hour shift schedule with a 14-day rotation of two days on duty, two days off duty, two days off duty, two days on duty and three days off duty. Days on or off duty are consistently Monday-Tuesday, Wednesday-Thursday and Friday-Saturday-Sunday (i.e., no patrol deputy will routinely have Tuesday-Wednesday as an on-duty or off-duty two-day set).

NATURE OF CITIZEN-INITIATED WORKLOAD

During the 18 months analyzed, welfare checks, which constitute a variety of situations in which a person may be in need of emergency assistance (for example, a 911 hang-up or a person observed lying by the side of the road), comprised the largest consumption of deputy time in the citizen-initiated category. Responses to family (domestic) violence either in-progress or after-the-fact was next, followed by requests (typically by telephone) for information by the public.

MCSO Northeast County Top 10 Citizen-initiated Call for Service Demand Categories	Total hrs.
Welfare checks	2,420.67
Family (domestic) violence in progress or post-occurrence	1,894.73
Request for information (questions from the public)	1,592.26
Disturbances (verbal or physical) in progress or post-occurrence	1,545.63
Theft (not including shoplifting)	912.84
Burglaries of residences, homes or businesses	767.61
Burglar alarms (homes, businesses and buildings)	698.74
Criminal mischief (vandalism)	623.97
Requests for information related to civil matters (divorce, child custody, evictions, etc.)	602.76
Suspicious persons	541.09

It is important to note the above information is not indicative solely of *frequency* of occurrence. Some calls for service typically require more than one deputy due to either the number of investigative tasks which must be accomplished or for officer safety. To illustrate: the time demanded for *two* separate citizen-initiated calls for service that each require a deputy for 30 minutes a piece would total one hour of time consumed; *one* citizen-initiated call for service that required a single deputy for 60 minutes would also total one hour consumed. Hence, the data provided reflects a *combination* of frequency of occurrence as well as circumstances such as the complexity or officer risk involved. Conclusions about the frequency of crime, safety or quality of life are inappropriate based upon this data.

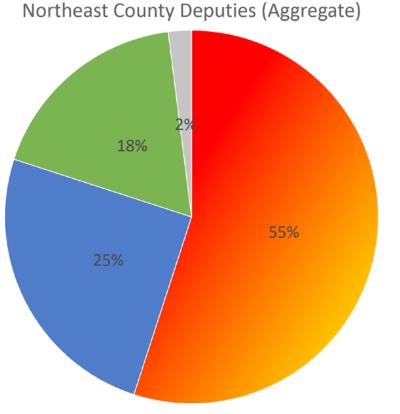
TIME CONSUMED

The Sheriff's Office currently allocates 22 deputy positions to Northeast County. There was an average of 1.78 positions vacant during any given month within the analysis period.

Deputies are deployed with a day shift (6 a.m. to 6 p.m.), a swing shift (12 p.m. to 12 a.m.) and a night shift (6 p.m. to 6 a.m.).

There was an average high of 3.8 deputies on duty in Northeast County at peak times and an average of 3.3 on duty at the low.

	AVG ON		AVERAGE DEPUTIES ON-DUTY DISTRIBUTION							
	DUTY	Mon	Tue	Wed	Thu	Fri	Sat	Sun		
12:00 AM	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3		
2:00 AM	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3		
4:00 AM	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3		
6:00 AM	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3		
8:00 AM	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3		
10:00 AM	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3		
12:00 PM	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8		
2:00 PM	3.8	3.8		3.8		3.8				
4:00 PM	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8		
6:00 PM	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8		
8:00 PM	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8		
10:00 PM	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8		



■ Obligated ■ Administrative time ■ Unobligated time ■ Documented area patrols (unobligated)

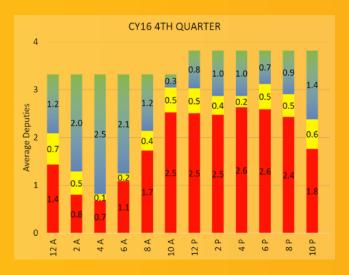
The analysis showed Northeast County deputies spent 55 percent of their time responding to citizen-initiated calls for service or conducting pro-active law enforcement activities such as traffic stops and criminal investigations. The analysis allocated 25 percent of the total available time for administrative duties such as writing reports, coordinating with supervisors and completing paperwork. Twenty percent of Northeast County deputies' time remained, of which approximately two percent was spent conducting documented area patrols (emphasis to area patrols added on January 1, 2017). The remaining 18 percent was considered unobligated, during which deputies conduct restroom breaks, eat meals (at least one during a 12-hour shift), engage in community policing or perform other functions (such as running radar in a school zone).

NORTHEAST COUNTY AVERAGE DEPUTY WORKLOAD DISTRIBUTION, JAN 16 TO JUN 17

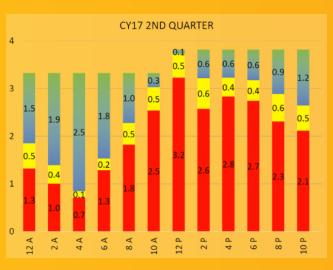












Citizen-initiated

ANALYSIS AND INTERPRETATION

Northeast County represents one of two Sheriff's Office areas under the most strain. It may be reasonably assumed deputies in this area are susceptible to stress and potential burnout. Unobligated time is the lowest of all Sheriff's Office areas. It is critical to note the majority of the 20 percent of unobligated time occurs between the hours of midnight and 6 a.m. This is problematic for two main reasons. During the remaining 18 hours of the day, when community policing is practical, citizeninitiated calls for service routinely exceed or near-exceed the capacity for deputies to respond—hence meaningful community policing activities that require unobligated time during this portion of the duty day are extremely limited. In addition, crime obviously occurs 24 hours a day. The ability to prevent crime is limited when unobligated time, during which deputies can execute COMPSTAT interventions, primarily exists for only a portion of those 24 hours.

There is little flexibility to adjust the start and stop times of shifts to attempt greater efficiency and not exceed capacity to respond to citizen-initiated calls for service at one or more times in any given 24-hour period. In other words, taking existing personnel or positions from one shift to give to another would constitute "robbing Peter to pay Paul." In addition, with 22 positions, in general, the Sheriff's Office is just barely meeting citizen-initiated calls for service demand during the daytime hours. Efficiency, therefore, tends to be a "moving target" and gains by a change in either a shift start and stop time or the number of deputies assigned to a particular shift could easily and quickly be negated with the loss of even one deputy.

PERFORMANCE OBJECTIVE RE-EVALUATION AND STAFFING PROJECTIONS

Using the initial performance objective of 50 percent unobligated time (to conduct community policing and COMPSTAT interventions), the Sheriff's Office should staff Northeast County with 49 deputy positions (not including supervisors or administrative support).

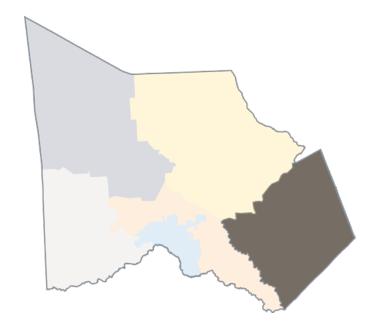
However, further analysis in consideration of the entire agency indicates that applying this 50 percent performance objective across the board to all Sheriff's Office non-contract areas would necessitate an addition of 99 total deputy positions throughout the county. Realistically, this number more than likely exceeds the Sheriff's Office capacity for growth over the next four years and exceeds the original figure provided to Commissioners Court by 22 positions.

In the interest of fiscal responsibility and realistic growth, reducing the performance objective to 48 percent results in a total of 81 patrol deputy positions to add which is more in line with the original number of 77 provided to Commissioners Court. Using 48 percent as a performance objective further results in a requirement to staff 45 total positions (only four less than the original figure of 49) in Northeast County necessitating an addition of 23 deputy positions in addition to the existing 22 (not including supervisors or administrative support).

EAST COUNTY

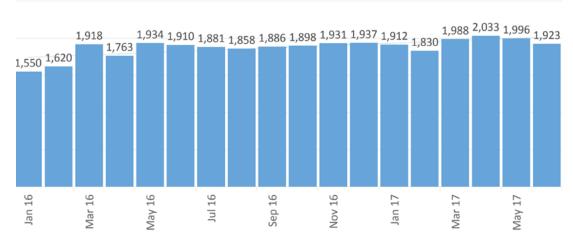
PORTER, SPLENDORA, NEW CANEY AND HIGHWAY 59 CORRIDOR

The Montgomery County Sheriff's Office is call-responsive for all unincorporated areas in East County. Law Enforcement partners such as Montgomery County Constable Precinct Four deputies assist in responding to citizen-initiated calls for service in unincorporated areas, however, the data factors-out their degree of involvement so that it neither exaggerates nor minimizes Sheriff's Office data.



DISTRIBUTION OF CITIZEN-INITIATED WORKLOAD

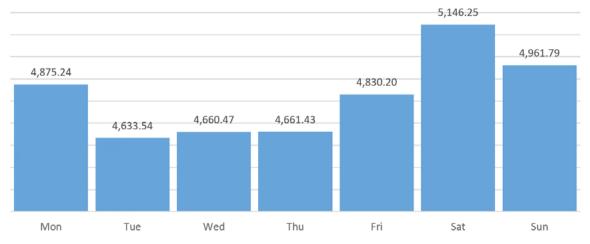
Citizen-initiated call for service demand (hours expended)



MONTGOMERY CO. SHERIFF'S OFFICE EAST COUNTY, JAN 16 TO JUN 17

While the total hours expended in response to citizeninitiated calls for service appears to be trending slightly upwards, it is critical to note there is no historical data to examine to determine whether this is an actual trend or simply a variance.

Total citizen-initiated call for service demand (hours expended)



MONTGOMERY CO. SHERIFF'S OFFICE EAST COUNTY

Saturday generated the highest amount of citizeninitiated call for service demand.

Citizen-Initiated Call For Service Demand (Hours Expended)



MONTGOMERY~CO.~SHERIFF'S~OFFICE~EAST~COUNTY, JAN~16~TO~JUN~17

Sheriff's Office patrol deputies in East County operate on a 12-hour shift schedule with a 14-day rotation of two days on duty, two days off duty, two days on duty and three days off duty. Days on or off duty are consistently Monday-Tuesday, Wednesday-Thursday and Friday-Saturday-Sunday (i.e., no patrol deputy will routinely have Tuesday-Wednesday as an on-duty or off-duty two-day set).

NATURE OF CITIZEN-INITIATED WORKLOAD

During the 18 months analyzed, welfare checks, which constitute a variety of situations in which a person may be in need of emergency assistance (for example, a 911 hang-up or a person observed lying by the side of the road), comprised the largest consumption of deputy time in the citizen-initiated category. Responses to disturbances (ranging from verbal arguments that disturb the peace to physical fights between persons or large groups of people) that are in progress or after-the-fact were the next highest, and family (domestic) violence either in-progress or after-the-fact followed.

MCSO East County Top 10 Citizen-initiated Call for Service Demand Categories	Total hrs.
Welfare checks	3,605.27
Disturbances (verbal or physical) in progress or post-occurrence	2,771.91
Family (domestic) violence in progress or post-occurrence	2,375.28
Request for information (questions from the public)	1,812.85
Theft (not including shoplifting)	1,571.00
Burglar alarms (homes, businesses and buildings)	1,167.52
Burglaries of residences, homes or businesses	1,117.29
Noise complaints (loud music, barking dogs, etc.)	992.28
Suspicious persons	949.33
Criminal mischief (vandalism)	772.77

It is important to note the above information is not indicative solely of *frequency* of occurrence. Some calls for service typically require more than one deputy due to either the number of investigative tasks which must be accomplished or for officer safety. To illustrate: the time demanded for *two* separate citizen-initiated calls for service that each require a deputy for 30 minutes a piece would total one hour of time consumed; *one* citizen-initiated call for service that required a single deputy for 60 minutes would *also* total one hour consumed. Hence, the data provided reflects a *combination* of frequency of occurrence as well as circumstances such as the complexity or officer risk involved. Conclusions about the frequency of crime, safety or quality of life are inappropriate based upon this data.

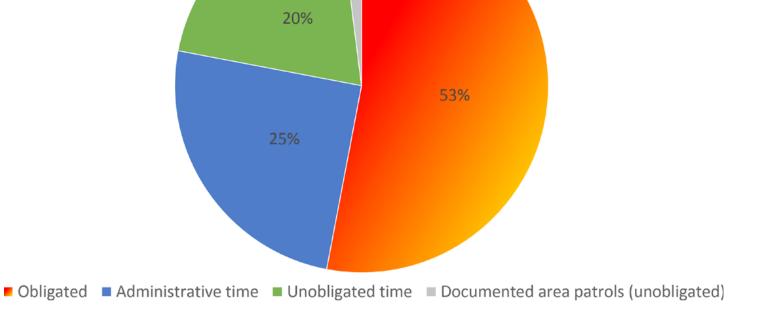
TIME CONSUMED

The Sheriff's Office currently allocates 29 deputy positions to the East County area. There was an average of 2.56 positions vacant during any given month within the analysis period.

Deputies are deployed with a day shift (6 a.m. to 6 p.m.), a swing shift (12 p.m. to 12 a.m.) and a night shift (6 p.m. to 6 a.m.).

There was an average high of 5.5 deputies on duty in East County at peak times and an average of 4.0 on duty at the low.

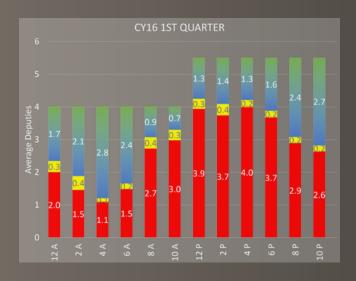
	AVG ON		AVERAGE DEPUTIES ON-DUTY DISTRIBUTION						
	DUTY	Mon	Tue	Wed	Thu	Fri	Sat	Sun	
12:00 AM	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
2:00 AM	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
4:00 AM	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
6:00 AM	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
8:00 AM	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
10:00 AM	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
12:00 PM	5.5	5.5	5.5	5.5		5.5		5.5	
2:00 PM	5.5	5.5				5.5			
4:00 PM	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	
6:00 PM	5.5	5.5	5.5	5.5		5.5		5.5	
8:00 PM	5.5	5.5			5.5	5.5			
10:00 PM	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	

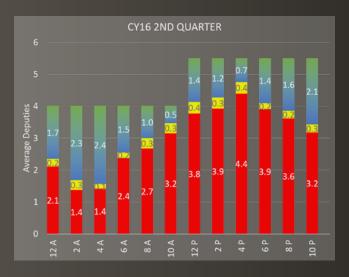


The analysis showed East County deputies spent 53 percent of their time responding to citizen-initiated calls for service or conducting pro-active law enforcement activities such as traffic stops and criminal investigations. The analysis allocated 25 percent of the total available time for administrative duties such as writing reports, coordinating with supervisors and completing paperwork. Twenty-two percent of East County deputies' time remained, of which approximately two percent was spent conducting documented area patrols (emphasis to area patrols added on January 1, 2017). The remaining 20 percent was considered unobligated, during which deputies conduct restroom breaks, eat meals (at least one during a 12-hour shift), engage in community policing or perform other functions (such as running radar in a school zone).

East County Deputies (Aggregate)

EAST COUNTY AVERAGE DEPUTY WORKLOAD DISTRIBUTION, JAN 16 TO JUN 17

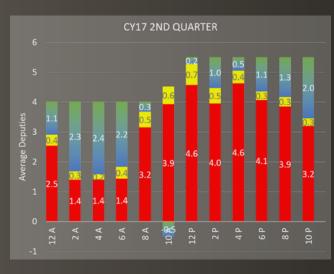












In-Service or Admin

ANALYSIS AND INTERPRETATION

East County represents one of two Sheriff's Office areas under the most strain. It may be reasonably assumed deputies in this area are susceptible to stress and potential burnout. Unobligated time is second-lowest of all Sheriff's Office areas (22 percent versus Northeast County's 20 percent). The largest period of this unobligated time occurs between the hours of midnight and 6 a.m. As in other areas, this is problematic for two main reasons. During the remaining 18 hours of the day, when community policing is practical, citizeninitiated calls for service routinely exceed or near-exceed the capacity for deputies to respond—hence meaningful community policing activities that require unobligated time during this portion of the duty day are extremely limited. In addition, crime obviously occurs 24 hours a day. The ability to prevent crime is limited when unobligated time, during which deputies can execute interventions, primarily exists for only a portion of those 24 hours.

There is very little flexibility to adjust the start and stop times of shifts to attempt greater efficiency and not exceed capacity to respond to citizen-initiated calls for service at one or more times in any given 24-hour period. In other words, taking existing personnel or positions from one shift to give to another would constitute "robbing Peter to pay Paul." In addition, with 29 positions, in general, the Sheriff's Office is just barely meeting citizen-initiated calls for service demand during the daytime hours. Efficiency, therefore, tends to be a "moving target" and gains by a change in either a shift start and stop time or the number of deputies assigned to a particular shift could easily and quickly be negated with the loss of even one deputy.

PERFORMANCE OBJECTIVE RE-EVALUATION AND STAFFING PROJECTIONS

Using the initial performance objective of 50 percent unobligated time (to conduct community policing and COMPSTAT interventions), the Sheriff's Office should staff East County with 64 deputy positions (not including supervisors or administrative support).

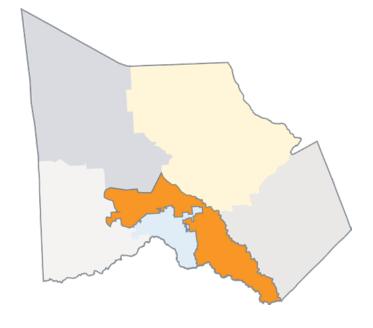
However, further analysis in consideration of the entire agency indicates that applying this 50 percent performance objective across the board to all Sheriff's Office non-contract areas would necessitate an addition of 99 total deputy positions throughout the county. Realistically, this number more than likely exceeds the Sheriff's Office capacity for growth over the next four years and exceeds the original figure provided to Commissioners Court by 22 positions.

In the interest of fiscal responsibility and realistic growth, reducing the performance objective to 48 percent results in a total of 81 patrol deputy positions to add which is more in line with the original number of 77 provided to Commissioners Court. Using 48 percent as a performance objective further results in a requirement to staff 59 total positions (only five less than the original figure of 64) in East County necessitating an addition of 30 deputy positions in addition to the existing 29 (not including supervisors or administrative support).

SOUTH COUNTY

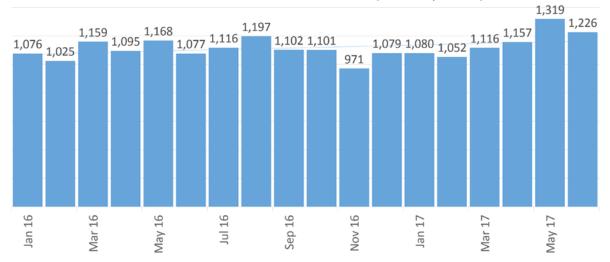
EAST FM 1488 AND SPRING

The Montgomery County Sheriff's Office is call-responsive for all unincorporated areas in South County with the exception of several subdivisions to the east of Interstate 45 served through contracts with Montgomery County Constable Precinct Three. Both Sheriff's Office and constable's deputies along with partners in the City of Shenandoah and Oak Ridge work closely to respond to priority citizen-initiated calls for service in the event a particular agency is unable to immediately respond to their area of responsibility. The analysis data, however, factorsout the non-Sheriff's Office degree of involvement so that it neither exaggerates nor minimizes Sheriff's Office data. The Sheriff's Office also provides enhanced patrol to two areas within South County (not including The Woodlands). The first is a contract with the South Montgomery County Municipal Utility District (SMCMUD) which includes an area immediately surrounding Interstate 45, Sawdust Road and Rayford Road. The second is the West Magnolia Parkway Improvement District (WMPID), which includes an area anchored by the intersection of FM 2978 and FM 1488.



DISTRIBUTION OF CITIZEN-INITIATED WORKLOAD

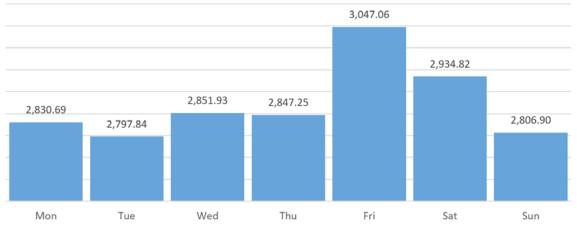
Citizen-initiated call for service demand (hours expended)



MONTGOMERY CO. SHERIFF'S OFFICE SOUTH COUNTY, JAN 16 TO JUN 17

While the total hours expended in response to citizeninitiated calls for service appears to be trending slightly upwards, it is critical to note there is no historical data to examine to determine whether this is an actual trend or simply a variance.

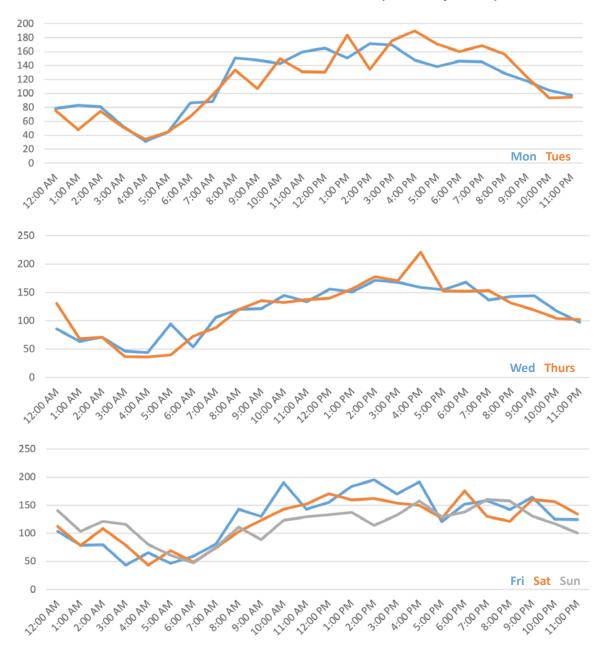
Total citizen-initiated call for service demand (hours expended)



MONTGOMERY CO. SHERIFF'S OFFICE SOUTH COUNTY

Fridays generated the highest amount of citizen-initiated call for service demand.

Citizen-Initiated Call For Service Demand (Hours Expended)



MONTGOMERY CO. SHERIFF'S OFFICE SOUTH COUNTY, JAN 16 TO JUN 17

Sheriff's Office patrol deputies in South County, four of the five SMCMUD contract deputies and the two WMPID contract deputies operate on a 12-hour shift schedule with a 14-day rotation of two days on duty, two days off duty, three days on duty, two days off duty, two days on duty and three days off duty. Days on or off duty are consistently Monday-Tuesday, Wednesday-Thursday and Friday-Saturday-Sunday (i.e., no patrol deputy will routinely have Tuesday-Wednesday as an on-duty or off-duty two-day set). One of five SMCMUD contract deputies operates on eight-hour shifts with five days on duty followed by two days off duty.

NATURE OF CITIZEN-INITIATED WORKLOAD

During the 18 months analyzed, welfare checks, which constitute a variety of situations in which a person may be in need of emergency assistance (for example, a 911 hang-up or a person observed lying by the side of the road), comprised the largest consumption of deputy time in the citizen-initiated category. Responses to burglar alarms at homes, business or buildings were the next highest followed by requests (typically by telephone) for information by the public.

MCSO South County Top 10 Citizen-initiated Call for Service Demand Categories	Total hrs.
Welfare checks	1,747.40
Burglar alarms (homes, businesses and buildings)	1,530.49
Request for information (questions from the public)	898.56
Family (domestic) violence in progress or post-occurrence	799.71
Disturbances (verbal or physical) in progress or post-occurrence	670.80
Theft (not including shoplifting)	635.73
Suspicious persons	492.46
Burglaries of residences, homes or businesses	420.69
Motor vehicle accidents (non-injury)	411.83
Suspicious vehicles	360.97

It is important to note the above information is not indicative of *frequency* of occurrence. Some calls for service typically require more than one deputy due to either the number of investigative tasks that must be accomplished or for officer safety. To illustrate: the time demanded for *two* separate citizen-initiated calls for service that each require a deputy for 30 minutes a piece would total one hour of time consumed; *one* citizen-initiated call for service that required a single deputy for 60 minutes would also total one hour consumed. Hence, the data provided reflects a *combination* of frequency of occurrence as well as the complexity or officer risk involved. Conclusions about the frequency of crime, safety or quality of life are inappropriate based upon this data.

TIME CONSUMED

The Sheriff's Office currently allocates 23 taxpayer-funded deputy positions to South County. There was an average of 3.00 positions vacant among during any given month within the analysis period. SMCMUD funds an additional five contract deputy positions. These positions were filled during the analysis period. WMPID funds two contract deputies These positions were also filled during the analysis period.

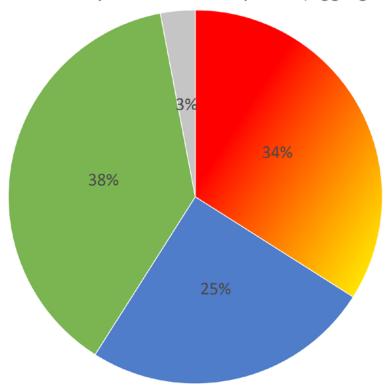
Taxpayer-funded deputies and four of five SMCMUD deputies are deployed with a day shift (6 a.m. to 6 p.m.) and a

	AVG ON	AV	AVERAGE DEPUTIES ON-DUTY DISTRIBUTION							
	DUTY	Mon	Tue	Wed	Thu	Fri	Sat	Sun		
12:00 AM	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7		
2:00 AM	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7		
4:00 AM	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7		
6:00 AM	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4		
8:00 AM	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8		
10:00 AM	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2		
12:00 PM	5.3	5.3	5.3	5.3	5.3	5.3	5.2	5.2		
2:00 PM	5.3	5.3	5.3	5.3	5.3	5.3	5.2	5.2		
4:00 PM	5.3	5.3	5.3	5.3	5.3	5.3	5.2	5.2		
6:00 PM	4.5	4.6	4.6	4.6	4.6	4.6	4.4	4.4		
8:00 PM	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1		
10:00 PM	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7		

night shift (6 p.m. to 6 a.m.). One of five units assigned to the SMCMUD contract operates on an eight-hour schedule. This deputy worked 12 p.m. to 8 p.m. Monday through Friday with Saturdays and Sundays off. Two units were assigned to the WMPID contract. These two units operated on 14-day, 12-hour shift schedule as other South County deputies except that they alternated days on and days off, with one deputy working 8 a.m. to 8 p.m. and the other working 10 a.m. to 10 p.m.

There was an average high of 5.3 deputies on duty in South County at peak times and an average of 3.7 on duty at the low.





■ Obligated ■ Administrative time ■ Unobligated time ■ Documented area patrols (unobligated)

The analysis showed South County deputies spent 34 percent of their time responding to citizeninitiated calls for service or conducting pro-active law enforcement activities such as traffic stops and criminal investigations. The analysis allocated 25 percent of the total available time for administrative duties such as writing reports, coordinating with supervisors and completing paperwork. Forty-one percent of South County deputies' time remained, of which approximately three percent was spent conducting documented area patrols (emphasis to area patrols added on January 1, 2017). The remaining 38 percent was considered unobligated, during which deputies conduct restroom breaks, eat meals (at least one during a 12-hour shift), engage in community policing or perform other functions (such as running radar in a school zone).

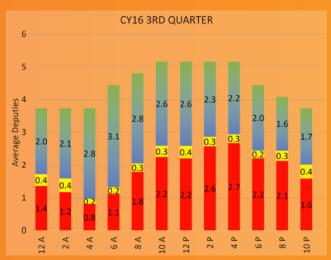
The analysis showed SMCMUD contract deputies spent 26 percent of their time responding to citizen-initiated calls for service or pro-active law enforcement activities. Again, the analysis allocated 25 percent of the total available time for administrative duties leaving 49 percent of SMCMUD contract deputies' time unobligated. SMCMUD deputies spent six percent of that unobligated time conducting documented area patrols, leaving 43 percent of their time available to engage in community policing or other functions.

For analysis purposes, due to CAD configuration, taxpayer-funded and WMPID contract deputies were analyzed in combination.

SOUTH COUNTY AVERAGE DEPUTY WORKLOAD DISTRIBUTION, JAN 16 TO JUN 17

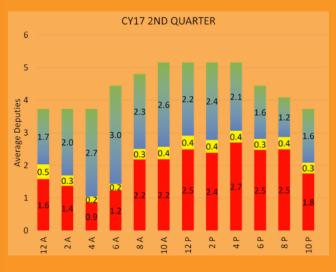












In-Service or Admin

ANALYSIS AND INTERPRETATION

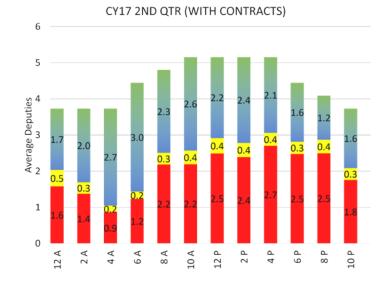
At first glance, South County may appear to be adequately staffed. However, several circumstances must be taken into account before drawing a conclusion.

First, similar to other areas of the county, approximately half of the total unobligated time (41 percent for taxpayer-funded and WMPID contract deputies) occurs in the nighttime hours. While COMPSTAT interventions would only be somewhat constrained during peak citizen-initiated call for service demand, community policing would be fairly limited during hours when the majority of the population is asleep and unwilling to voluntarily engage the police.

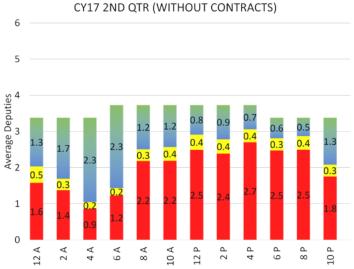
Second, it is also important to note enhancements provided by WMPID and SMCMUD contracts not only benefit those communities, but also benefit the entire South County area by providing additional deputies close by to respond to emergencies outside of the contract areas and provide an additional degree of officer safety.

	AVG ON	AV	AVERAGE DEPUTIES ON-DUTY DISTRIBUTION					
	DUTY	Mon	Tue	Wed	Thu	Fri	Sat	Sun
12:00 AM	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
2:00 AM	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
4:00 AM	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
6:00 AM	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
8:00 AM	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
10:00 AM	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
12:00 PM	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
2:00 PM	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
4:00 PM	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
6:00 PM	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
8:00 PM	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
10:00 PM	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4

AVERAGE ON-DUTY DEPUTY DISTRIBUTION WITHOUT SMCMUD AND WMPID CONTRACT DEPUTIES, JAN 16 TO JUN 17



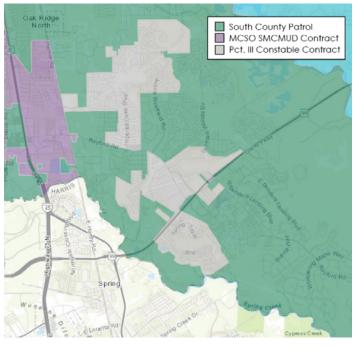




MONTGOMERY CO. SHERIFF'S OFFICE SOUTH COUNTY AVERAGE WORKLOAD DISTRIBUTION DURING THE SECOND QUARTER OF CY17 WITHOUT WMPID AND SMCMUD CONTRACTS

Finally, it is important to acknowledge law enforcement partners in the area: without contracts between Montgomery County Constable Precinct Three and subdivisions on the east side of Interstate 45, the Sheriff's Office would be responsible for all citizen-initiated calls for service in those areas and the 41 percent of unobligated time in the analysis period would likely shrink significantly.

There is a small degree of flexibility to adjust the start and stop times of shifts to attempt greater efficiency, however, the number of vacant positions affects this. The higher the vacancies, the more efficiency tends to be a "moving target" and gains by a change in either a shift start and stop time or the number of deputies assigned to a particular shift could easily and quickly be negated with the sudden loss of even one or two deputies.



CURRENT MONTGOMERY COUNTY CONSTABLE PRECINCT THREE CONTRACT AREAS' ABSENT CONTRACTS, THE MONTGOMERY COUNTY SHERIFF'S OFFICE WOULD BE CALL-RESPONSIVE TO THIS PORTION OF THE POPULATION

PERFORMANCE OBJECTIVE RE-EVALUATION AND STAFFING PROJECTIONS

Using the initial performance objective of 50 percent unobligated time (to conduct community policing and COMPSTAT interventions), the Sheriff's Office should staff South County with 41 deputy positions total (not including supervisors and administrative support). This projection is made with the assumption Montgomery County Constable Precinct Three will continue with their contracts with subdivisions on the east side of Interstate 45. Should the status of any of these existing contracts change, further calculations must be made.

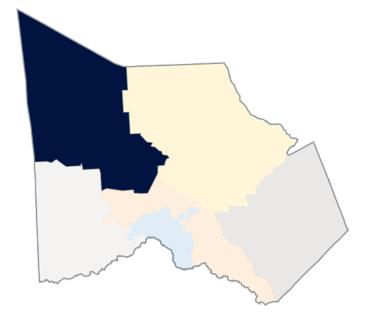
An additional consideration is that further analysis using the 50 percent performance objective across the board to all Sheriff's Office non-contract areas would necessitate an addition of 99 total deputy positions throughout the entire county. Realistically, this number more than likely exceeds the Sheriff's Office capacity for growth over the next four years and exceeds the original figure provided to Commissioners Court by 22 positions.

In the interest of fiscal responsibility and realistic growth, reducing the performance objective to 48 percent results in a total of 81 patrol deputy positions to add which is more in line with the original number of 77 provided to Commissioners Court. Using 48 percent as a performance objective further results in a requirement to staff 37 total positions (only four less than the original figure of 41) in South County necessitating an addition of 14 deputy positions in addition to the existing 23 (not including supervisors or administrative support).

NORTHWEST COUNTY

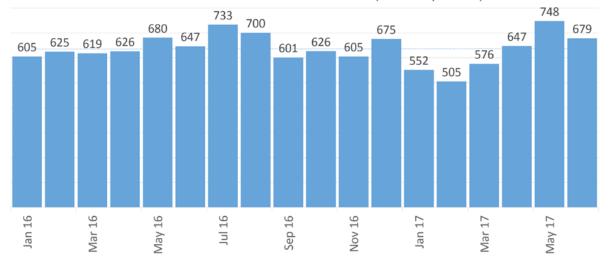
LAKE CONROE AND MONTGOMERY

The Montgomery County Sheriff's Office is call-responsive for all unincorporated areas in Northwest County with the exception of the water surface of Lake Conroe. Law Enforcement partners, such as Montgomery County Constable Precinct One conduct watercraft patrol and also respond to priority citizen-initiated calls for service in unincorporated areas when Sheriff's Office deputies are unavailable, however, they do so as a courtesy and are not required to assist. Analysis data factors-out their degree of involvement so that it neither exaggerates nor minimizes Sheriff's Office data. The Sheriff's Office also provides enhanced patrol to two areas within Northwest County. The first is a contract with the Woodforest Subdivision/Municipal Utility District (MUD) 113 and the Walden Community.



DISTRIBUTION OF CITIZEN-INITIATED WORKLOAD

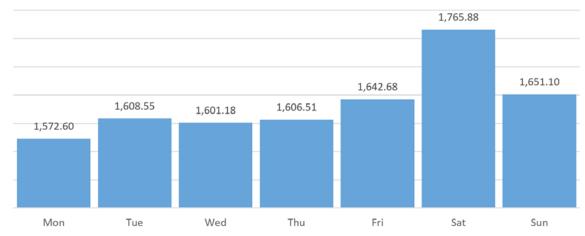
Citizen-initiated call for service demand (hours expended)



MONTGOMERY CO. SHERIFF'S OFFICE NORTHWEST COUNTY, JAN 16 TO JUN 17

The total hours expended in response to citizen-initiated calls for service does not appear to exhibit any pattern.

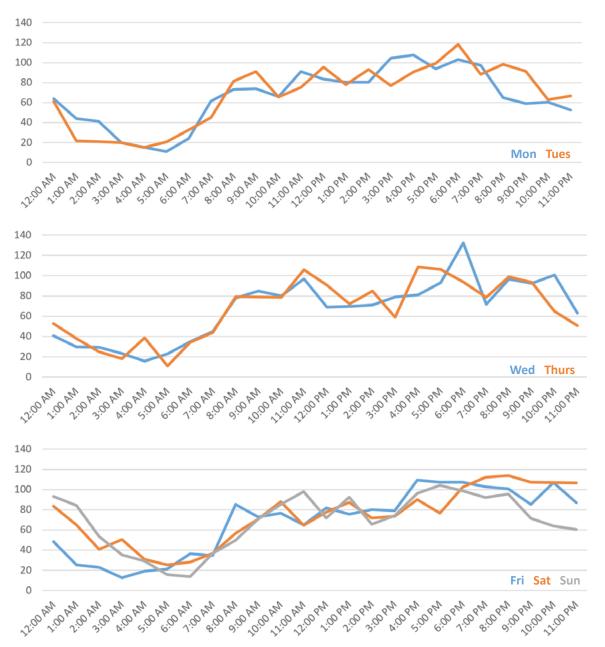
Total citizen-initiated call for service demand (hours expended)



MONTGOMERY CO. SHERIFF'S OFFICE NORTHWEST COUNTY

Citizen-initiated call for service demand peaked on Saturdays.

Citizen-Initiated Call For Service Demand (Hours Expended)



MONTGOMERY CO. SHERIFF'S OFFICE NORTHWEST COUNTY, JAN 16 TO JUN 17

Taxpayer-funded Sheriff's Office patrol deputies in Northwest County operate on a 12-hour shift schedule with a 14-day rotation of two days on duty, two days off duty, three days on duty, two days off duty, two days on duty and three days off duty. Days on or off duty are consistently Monday-Tuesday, Wednesday-Thursday and Friday-Saturday-Sunday (i.e., no patrol deputy will routinely have Tuesday-Wednesday as an on-duty or off-duty two-day set). Both sets of contract-funded deputies in Woodforest and Walden operate on eight-hour shifts with five days on duty followed by two days off duty.

NATURE OF CITIZEN-INITIATED WORKLOAD

During the 18 months analyzed, welfare checks, which constitute a variety of situations in which a person may be in need of emergency assistance (for example, a 911 hang-up or a person observed lying by the side of the road), comprised the largest consumption of deputy time in the citizen-initiated category. Responses to family (domestic) violence either inprogress or after-the-fact was the next highest followed by requests for information (typically by telephone) by the public.

MCSO Northwest County Top 10 Citizen-initiated Call for Service Demand Categories	Total hrs.
Welfare checks	2,420.67
Family (domestic) violence in progress or post-occurrence	1,894.73
Request for information (questions from the public)	1,592.26
Disturbances (verbal or physical) in progress or post-occurrence	1,545.63
Theft (not including shoplifting)	912.84
Burglaries of residences, homes or businesses	767.61
Burglar alarms (homes, businesses and buildings)	698.74
Criminal mischief (vandalism)	623.97
Requests for information related to civil matters (divorce, child custody, evictions, etc.)	602.76
Suspicious persons	541.09

It is important to note the above information is not indicative of *frequency* of occurrence. Some calls for service typically require more than one deputy due to either the number of investigative tasks that must be accomplished or for officer safety. To illustrate: the time demanded for *two* separate citizen-initiated calls for service that each require a deputy for 30 minutes a piece would total one hour of time consumed; *one* citizen-initiated call for service that required a single deputy for 60 minutes would *also* total one hour consumed. Hence, the data provided reflects a *combination* of frequency of occurrence as well as circumstances such as the complexity or officer risk involved. Conclusions about the frequency of crime, safety or quality of life are inappropriate based upon this data.

TIME CONSUMED

The Sheriff's Office allocates 18 deputy positions to Northwest County. There was an average of 0.67 taxpayer-funded positions vacant during any given month within the analysis period. The Woodforest Subdivision funds two additional contract deputy positions and the Walden community funds two contract deputy positions as well. There were no vacancies in these contract positions during the analysis.

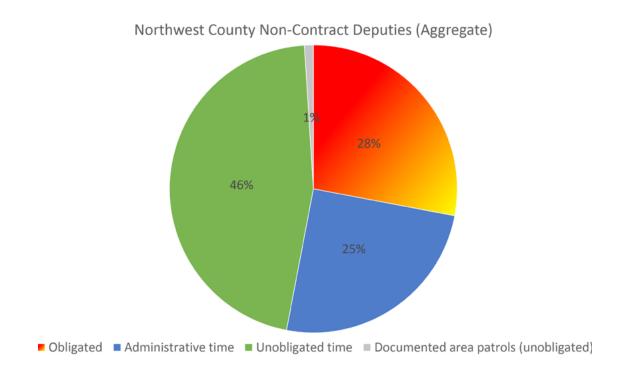
Taxpayer-funded deputies are deployed with a day shift (6 a.m. to 6 p.m.) and a night shift (6 p.m. to 6 a.m.). One Woodforest and one Walden contract

	AVG ON	AVERAGE DEPUTIES ON-DUTY DISTRIBUTION						
	DUTY	Mon	Tue	Wed	Thu	Fri	Sat	Sun
12:00 AM	3.1	2.9	3.2	3.2	3.2	3.2	3.2	2.9
2:00 AM	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
4:00 AM	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
6:00 AM	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
8:00 AM	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
10:00 AM	3.8	3.9	3.9	3.9	3.6	3.6	3.9	3.9
12:00 PM	3.8	3.9	3.9	3.9	3.6	3.6	3.9	3.9
2:00 PM	3.8	3.9	3.9	3.9	3.6	3.6	3.9	3.9
4:00 PM	3.8	3.9	3.9	3.9	3.6	3.6	3.9	3.9
6:00 PM	3.1	2.9	3.2	3.2	3.2	3.2	3.2	2.9
8:00 PM	3.1	2.9	3.2	3.2	3.2	3.2	3.2	2.9
10:00 PM	3.1	2.9	3.2	3.2	3.2	3.2	3.2	2.9

deputy work eight-hour shifts, five days a week from 10 a.m. to 6 p.m. and one Woodforest and one Walden contract deputy work eight-hour shifts, five days a week from 6 p.m. to 2 a.m. Two of these deputies had Thursday and Friday as days off and the other two had Sunday and Monday off.

There was an average high of 3.9 deputies on duty in Northwest County at peak times and an average of 2.9 on duty at the low.

While both non-contract and contract areas were analyzed, the Woodforest contract was initiated on October 1, 2016; therefore, only nine months of data was collected. This is less than the minimum of 12 months of data recommended for analysis by Wilson and Weiss and the 18 months of data gathered for all other areas in the analysis. Hence, extreme caution must be exercised in interpretation of Woodforest data. Prior to October of 2016, activity within the Woodforest subdivision was captured under the non-contract areas of Northwest County.



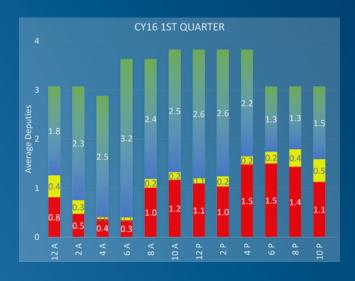
During this analysis period, taxpayer-funded deputies spent 28 percent of their time responding to citizeninitiated calls for service or conducting pro-active law enforcement activities such as traffic stops and criminal investigations. The analysis allocated 25 percent of the total available time for administrative duties such as writing reports, coordinating with supervisors and completing paperwork. Forty-seven percent of taxpayerfunded deputies' time remained, of which approximately one percent was spent conducting documented area patrols (emphasis to area patrols added on January 1, 2017). The remaining 46 percent was considered unobligated, during which deputies conduct restroom breaks, eat meals (at least one during a 12-hour shift), engage in community policing or perform other functions (such as running radar in a school zone).

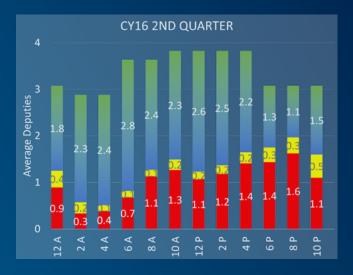
Woodforest contract deputies spent seven percent of their time responding to citizen-initiated calls for service or conducting pro-active law enforcement activities. Recall, this number likely does not reflect actual workload since it represents only nine months of data. In addition, the Woodforest contract does not provide 24-hour coverage; hence, taxpayer-funded deputies must respond to citizen-initiated calls for service or conduct pro-active activities when Woodforest contract deputies

are not on-duty—this workload is contained within the non-contract percentages, but cannot be delineated due to the nature of the Computer Aided Dispatch (CAD) configuration. Again, 25 percent of the total deputy time available was allocated to administrative tasks. Woodforest deputies spent seven percent of their total time performing documented area patrols within the contract area.

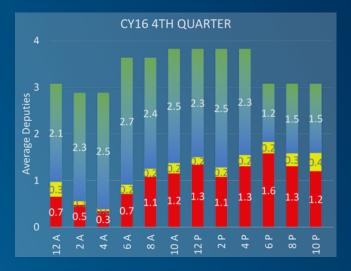
Walden contract deputies spent 24 percent of their time responding to citizen-initiated calls for service or conducting pro-active law enforcement activities such as traffic stops and criminal investigations. Twentyfive percent of total deputy time was allocated to administrative tasks. Fifty-one percent of the Walden contract deputies' time remained, of which two percent was spent conducting documented area patrols (emphasis to area patrols added on January 1, 2017). Like the Woodforest contract, the Walden contract does not provide for 24-hour coverage. Taxpayer-funded deputies must respond to citizen-initiated calls for service or conduct pro-active activities when Walden contract deputies are not on duty. This workload is contained within the non-contract percentages, but cannot be delineated due to the nature of the CAD configuration.

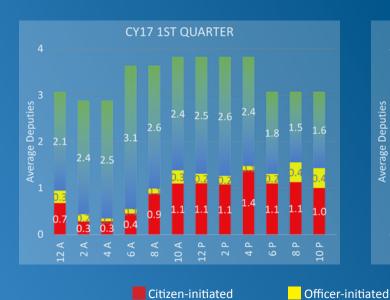
NORTHWEST COUNTY AVERAGE DEPUTY WORKLOAD DISTRIBUTION, JAN 16 TO JUN 17













ANALYSIS AND INTERPRETATION

Northwest County appears to be under less strain than other areas particularly when compared to East and Northeast County. In particular, deputies in this area appear to nearly meet or exceed the performance objective of 50 percent. A key point to bear in mind is that, while taxpayer-funded deputies showed to have 47 percent of their time unobligated, a portion of this unobligated time occurred during evening and early morning hours when the community is unwilling to voluntarily engage police making that time productive only for COMPSTAT interventions and not community policing.

There is a small degree of flexibility to adjust the start and stop times of shifts to attempt greater efficiency, however, the number of vacant positions affects this. The higher the vacancies, the more efficiency tends to be a "moving target" and gains by a change in either a shift start and stop time or the number of existing deputy positions assigned to a particular shift could easily and quickly be negated with the sudden loss of even one or two deputies.

PERFORMANCE OBJECTIVE RE-EVALUATION AND STAFFING PROJECTIONS

Using the initial performance objective of 50 percent unobligated time (to conduct community policing and COMPSTAT interventions), the Sheriff's Office should staff Northwest County with 24 deputy positions (not including supervisors or administrative support).

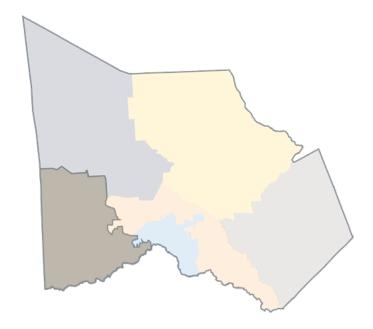
However, further analysis in consideration of the entire agency indicates that applying this 50 percent performance objective across the board to all Sheriff's Office non-contract areas would necessitate an addition of 99 total deputy positions throughout the county. Realistically, this number more than likely exceeds the Sheriff's Office capacity for growth over the next four years and exceeds the original figure provided to Commissioners Court by 22 positions.

In the interest of fiscal responsibility and realistic growth, reducing the performance objective to 48 percent results in a total of 81 patrol deputy positions to add which is more in line with the original number of 77 provided to Commissioners Court. Using 48 percent as a performance objective further results in a requirement to staff 22 total positions (only two less than the original figure of 24) in Northwest County necessitating an addition of four deputy positions in addition to the existing 18 (not including supervisors or administrative support).

SOUTHWEST COUNTY

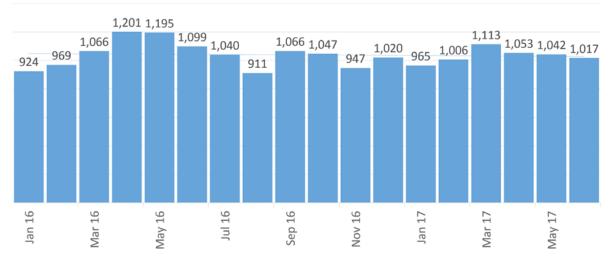
MAGNOLIA AND SOUTH FM 149

The Montgomery County Sheriff's Office is call-responsive for all unincorporated areas in Southwest County. Law Enforcement partners, such as City of Magnolia Police Officers, respond to priority citizen-initiated calls for service in unincorporated areas close to their city during times when Sheriff's Office deputies are unavailable, however, they do so as a courtesy and are not required to assist. Analysis data factors-out their degree of involvement so that it neither exaggerates nor minimizes Sheriff's Office data.



DISTRIBUTION OF CITIZEN-INITIATED WORKLOAD

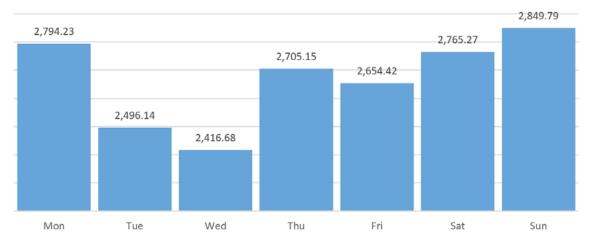
Citizen-initiated call for service demand (hours expended)



MONTGOMERY CO. SHERIFF'S OFFICE SOUTHWEST COUNTY, JAN 16 TO JUN 17

The total hours expended in response to citizen-initiated calls for service does not appear to exhibit any pattern.

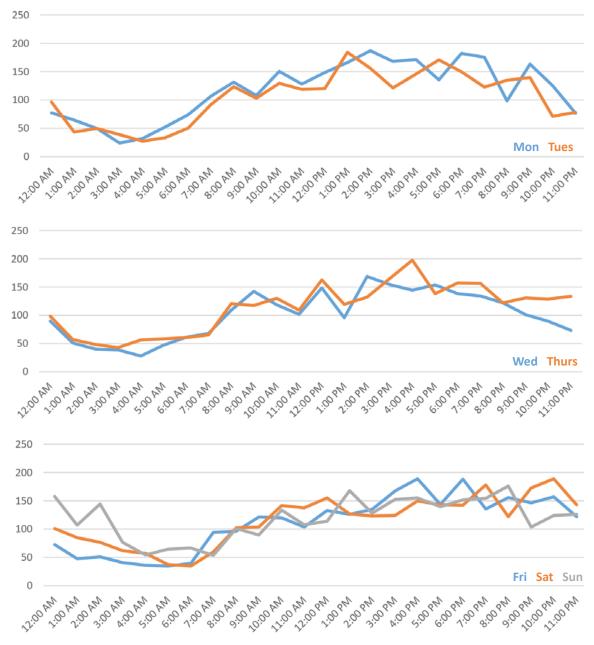
Total citizen-initiated call for service demand (hours expended)



MONTGOMERY CO. SHERIFF'S OFFICE SOUTHWEST COUNTY

Citizen-initiated call for service demand was the highest on Sundays and Mondays.

Citizen-Initiated Call For Service Demand (Hours Expended)



MONTGOMERY CO. SHERIFF'S OFFICE SOUTHWEST COUNTY, JAN 16 TO JUN 17

Sheriff's Office patrol deputies in Southwest County operate on a 12-hour shift schedule with a 14-day rotation of two days on duty, two days off duty, two days off duty, two days on duty and three days off duty. Days on or off duty are consistently Monday-Tuesday, Wednesday-Thursday and Friday-Saturday-Sunday (i.e., no patrol deputy will routinely have Tuesday-Wednesday as an on-duty or off-duty two-day set).

NATURE OF CITIZEN-INITIATED WORKLOAD

During the 18 months analyzed, welfare checks, which constitute a variety of situations in which a person may be in need of emergency assistance (for example, a 911 hang-up or a person observed lying by the side of the road), comprised the largest consumption of deputy time in the citizen-initiated category. Responses to family (domestic) violence either in-progress or after-the-fact were next followed by responses to burglar alarms from homes, businesses and buildings.

MCSO Northwest County Top 10 Citizen-initiated Call for Service Demand Categories	Total hrs.
Welfare checks	2,420.67
Family (domestic) violence in progress or post-occurrence	1,894.73
Request for information (questions from the public)	1,592.26
Disturbances (verbal or physical) in progress or post-occurrence	1,545.63
Theft (not including shoplifting)	912.84
Burglaries of residences, homes or businesses	767.61
Burglar alarms (homes, businesses and buildings)	698.74
Criminal mischief (vandalism)	623.97
Requests for information related to civil matters (divorce, child custody, evictions, etc.)	602.76
Suspicious persons	541.09

It is important to note the above information is not indicative of *frequency* of occurrence. Some calls for service typically require more than one deputy due to either the number of investigative tasks that must be accomplished or for officer safety. To illustrate: the time demanded for *two* separate citizen-initiated calls for service that each require a deputy for 30 minutes a piece would total one hour of time consumed; *one* citizen-initiated call for service that required a single deputy for 60 minutes would *also* total one hour consumed. Hence, the data provided reflects a *combination* of frequency of occurrence as well as circumstances such as the complexity or officer risk involved. Conclusions about the frequency of crime, safety or quality of life are inappropriate based upon this data.

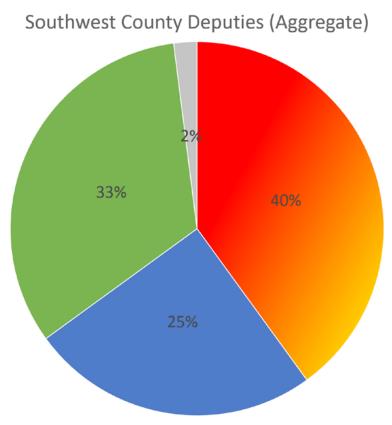
TIME CONSUMED

The Sheriff's Office allocates 20 deputy positions to Southwest County. There was an average of 0.39 positions vacant during any given month within the analysis period.

Deputies are deployed with a day shift (6 a.m. to 6 p.m.) and a night shift (6 p.m. to 6 a.m.).

There was an average high of 4.0 deputies on duty in Southwest County at any given time.

	AVG ON	ON AVERAGE DEPUTIES ON-DUTY DISTRIBUTION						
	DUTY	Mon	Tue	Wed	Thu	Fri	Sat	Sun
12:00 AM	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
2:00 AM	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
4:00 AM	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
6:00 AM	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
8:00 AM	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
10:00 AM	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
12:00 PM	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
2:00 PM	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
4:00 PM	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
6:00 PM	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
8:00 PM	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
10:00 PM	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

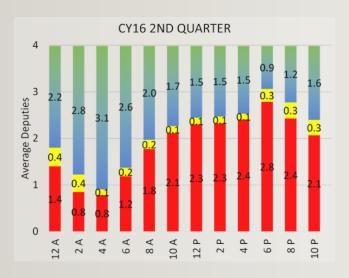


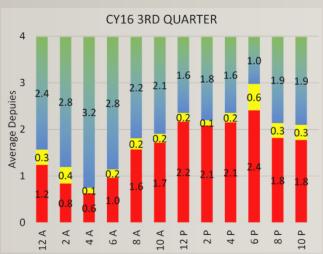
■ Obligated ■ Administrative time ■ Unobligated time ■ Documented area patrols (unobligated)

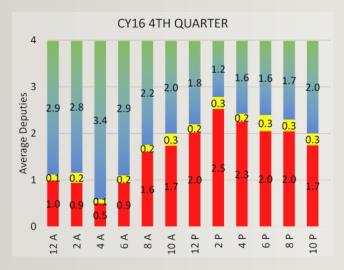
During this time, Southwest County deputies spent 40 percent of their time responding to citizen-initiated calls for service or conducting pro-active law enforcement activities such as traffic stops and criminal investigations. The analysis allocated 25 percent of the total available time for administrative duties such as writing reports, coordinating with supervisors and completing paperwork. Thirty-five percent of Southwest County deputies' time remained, of which approximately two percent was spent conducting documented area patrols (emphasis to area patrols added on January 1, 2017). The remaining 33 percent was considered unobligated, during which deputies conduct restroom breaks, eat meals (at least one during a 12-hour shift), engage in community policing or perform other functions (such as running radar in a school zone).

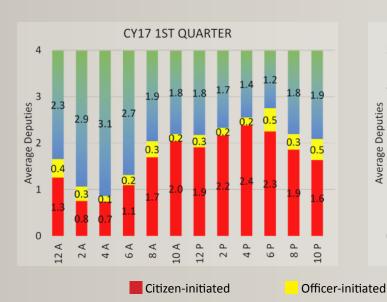
SOUTHWEST COUNTY AVERAGE DEPUTY WORKLOAD DISTRIBUTION, JAN 16 TO JUN 17

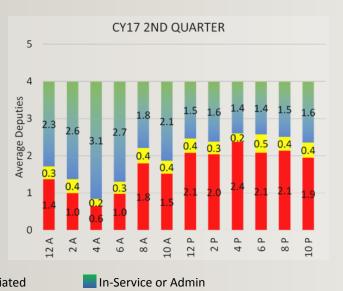












ANALYSIS AND INTERPRETATION

While 33 percent of total time unobligated appears to be sufficient, it is critical to note a large portion of unobligated time occurs between the hours of midnight and 6 a.m. This is problematic for two main reasons: During the remaining 18 hours of the day, when community policing is practical, citizen-initiated calls for service increase and limit a deputy's abilities to conduct meaningful community policing activities. In addition, crime obviously occurs 24 hours a day. The ability to prevent crime is limited when unobligated time, during which deputies can execute interventions, is adequate during only a portion of those 24 hours.

There is, realistically, no degree of flexibility to adjust the start and stop times of shifts to attempt greater efficiency. Due to vacancies, efficiency tends to be a "moving target" and gains by a change in either a shift start and stop time or the number of existing deputy positions assigned to a particular shift could easily and quickly be negated with the sudden loss of even one or two deputies.

PERFORMANCE OBJECTIVE RE-EVALUATION AND STAFFING PROJECTIONS

Using the initial performance objective of 50 percent unobligated time (to conduct community policing and COMPSTAT interventions), the Sheriff's Office should staff Southwest County with 33 deputy positions (not including supervisors or administrative support).

However, further analysis in consideration of the entire agency indicates that applying this 50 percent performance objective across the board to all Sheriff's Office non-contract areas would necessitate an addition of 99 total deputy positions throughout the county. Realistically, this number more than likely exceeds the Sheriff's Office capacity for growth over the next four years and exceeds the original figure provided to Commissioners Court by 22 positions.

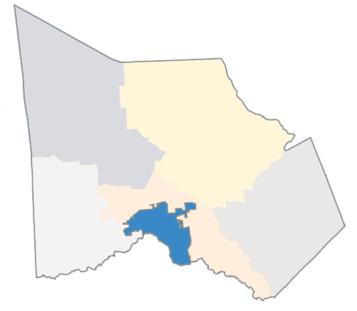
In the interest of fiscal responsibility and realistic growth, reducing the performance objective to 48 percent results in a total of 81 patrol deputy positions to add which is more in line with the original number of 77 provided to Commissioners Court. Using 48 percent as a performance objective further results in a requirement to staff 30 total positions (only three less than the original figure of 33) in Southwest County necessitating an addition of 10 deputy positions in addition to the existing 20 (not including supervisors or administrative support).

THE WOODLANDS TOWNSHIP

The Montgomery County Sheriff's Office is call-responsive for The Woodlands. Taxpayer-funded deputy positions are supplemented with contract positions.

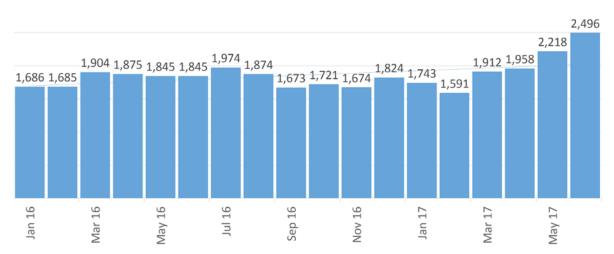
The location and dense population of The Woodlands and South County result in a concentration of multiple law enforcement agencies. In addition, the nature and proximity of administrative boundaries of nearby municipalities and the South County patrol area to The Woodlands yield a situation in which multiple agencies are consistently conducting law enforcement activities, particularly pro-active ones, outside of their assigned administrative boundaries. For example, a peace officer who documents a traffic stop at "Woodlands Parkway and Interstate 45" could be located in either the South County District, the City of Oak Ridge, or The Woodlands depending upon where, precisely, the violator pulled over.

The nature of this situation results in peace officers from different agencies and different administrative boundaries working closely together in the spirit of cooperation. Analysis data for The Woodlands factors-out the degree of involvement for deputies not assigned to The Woodlands and partner agency officers so that it neither exaggerates nor minimizes Sheriff's Office data.



DISTRIBUTION OF CITIZEN-INITIATED WORKLOAD

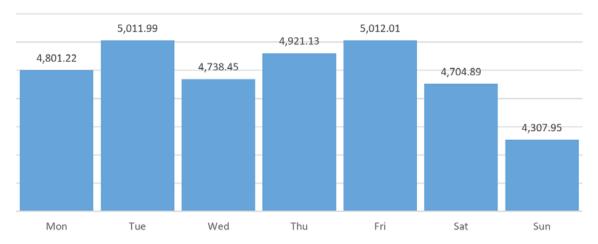
Citizen-initiated call for service demand (hours expended)



MONTGOMERY CO. SHERIFF'S OFFICE THE WOODLANDS TOWNSHIP, JAN 16 TO JUN 17

While the total hours expended in response to citizeninitiated calls for service appears to be trending upwards, it is critical to note there is no historical data to examine to determine whether this is an actual trend or simply a variance.

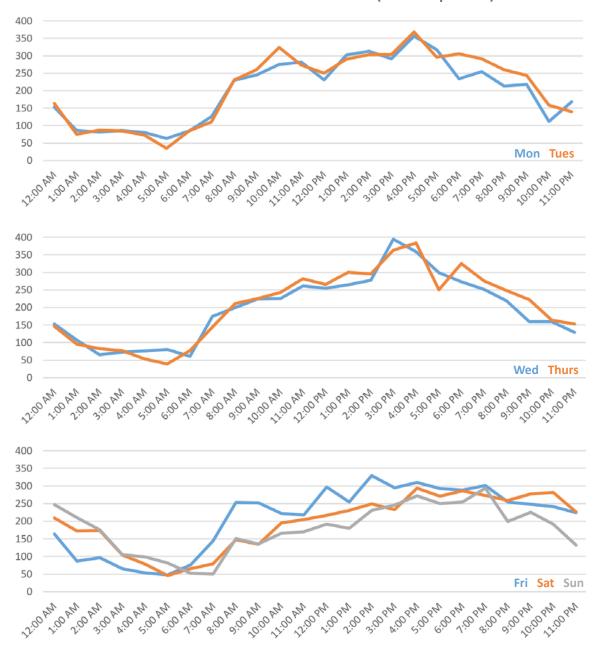
Total citizen-initiated call for service demand (hours expended)



MONTGOMERY CO. SHERIFF'S OFFICE THE WOODLANDS TOWNSHIP

Citizen-initiated calls for service peaked on Tuesdays, Thursdays and Fridays.





MONTGOMERY CO. SHERIFF'S OFFICE THE WOODLANDS TOWNSHIP, JAN 16 TO JUN 17

Sheriff's Office patrol deputies in The Woodlands operated on an eight-hour shift schedule up until and including May of 2017 (17 months of the analysis). In June of 2017 all deputies transitioned to a 12-hour shift schedule with a 14-day rotation of two days on duty, two days off duty, two days off duty, two days off duty, two days on duty and three days off duty. Days on or off duty are consistently Monday-Tuesday, Wednesday-Thursday and Friday-Saturday-Sunday (i.e., no patrol deputy will routinely have Tuesday-Wednesday as an on-duty or off-duty two-day set).

NATURE OF CITIZEN-INITIATED WORKLOAD

During the 18 months analyzed, welfare checks, which constitute a variety of situations in which a person may be in need of emergency assistance (for example, a 911 hang-up or a person observed lying by the side of the road), comprised the largest consumption of deputy time in the citizen-initiated category. Responses to thefts (non-retail) and shoplifting calls (a theft at a retail store) was next followed by requests (typically by telephone) for information by the public..

MCSO Woodlands Top 10 Citizen-initiated Call for Service Demand Categories	Total hrs.
Welfare checks	3,526.27
Theft including shoplifting	2,414.79
Request for information (questions from the public)	2,185.20
Burglar alarms (homes, businesses and buildings)	2,019.10
Vacation watches (citizen requests to check residences during prolonged absences)	1,970.71
Motor vehicle accidents (non-injury)	1,567.41
Suspicious persons	1,403.08
Disturbances (verbal or physical) in progress or post-occurrence	853.49
Burglaries of vehicles (car break-ins)	779.85
Burglaries of residences, homes or businesses	749.10

It is important to note the above information is not indicative of *frequency* of occurrence. Some calls for service typically require more than one deputy due to either the number of investigative tasks that must be accomplished or for officer safety. To illustrate: the time demanded for *two* separate citizen-initiated calls for service that each require a deputy for 30 minutes a piece would total one hour of time consumed; *one* citizen-initiated call for service that required a single deputy for 60 minutes would *also* total one hour consumed. Hence, the data provided reflects a *combination* of frequency of occurrence as well as circumstances such as the complexity or officer risk involved. Conclusions about the frequency of crime, safety or quality of life are inappropriate based upon this data.

It is also important to take into consideration the enhancements to productivity and officer safety provided by a robust contract with The Woodlands when making a comparison between other unincorporated areas of the county. With additional deputies available (who would not ordinarily be available in other areas of the county), more deputies are able to respond to incidents. First, this enhances officer safety. For example, more deputies may respond to a disturbance between multiple persons in The Woodlands whereas a lesser amount of deputies may be able to respond to a disturbance in other parts of the county (and due to extended travel, they may arrive at different times). Second, when properly managed, additional deputies on scene will enable the concurrent completion of tasks. For instance, a burglary scene typically requires a deputy to take written statements, dust for fingerprints, take pictures and collect evidence. With more deputies on scene and proper management, deputies may conduct these tasks concurrently instead of one at a time resulting in efficiency gains. Note, however, these are only examples of the potential benefits of contract enhancement; efficiency and time management are outside the scope of this analysis.

Top 10 Woodlands Demand Categories	Average number of Woodlands deputies responding to this type of incident	Average number of deputies responding to the same nature of incident outside of The Woodlands
Welfare checks	1.51	1.43
Thefts	1.33	
Shopliftings	1.53	1.12
Information requests	1.12	1.06
Burglar alarms	1.20	1.15
Vacation watches	1.02	1.05
Motor vehicle accidents (non-injury)	1.38	
Suspicious persons	1.49	1.34
Verbal or physical disturbances	2.16	1.93
Burglary of vehicles (car break-ins)	1.30	1.22

The data revealed that, during the analysis period, an average of 1.73 Woodlands deputies responded to citizeninitiated calls for service while an average of 1.55 Sheriff's Office deputies responded to the same nature of incidents in areas outside of The Woodlands.

Since this analysis reflected modality or the time expended by officers, comparison of citizen-initiated calls for service categories between The Woodlands and other areas must take into consideration that there are more deputies available in The Woodlands and therefore, more time will be expended.

TIME CONSUMED

A limitation exists when calculating data for The Woodlands. Woodlands deputies operated on an eight-hour schedule, five days on duty and two days off duty from January 2016 up to and including May of 2017. Woodlands deputies transitioned to 12-hour shifts in June of 2017. Citizen-initiated call for service demand and officer-initiated activities are known. Twenty-five percent of total actual availability time is allocated for administrative duties with the remainder calculated as unobligated time. Conducting an analysis and drawing conclusions based upon an eight-hour schedule as it existed during the majority of the analysis, though possible, is of extremely limited value considering the division recently transitioned to 12-hour shifts and will remain on 12-hour shifts in the future. As the goal of the patrol workload analysis is to not only examine data in a historical context, but to provide a means to project future need, the calculations and analysis which follow are made as if Woodlands deputies were operating on a 12-hour shift throughout the whole analysis. While this is not methodologically desirable, the alternative is to dismiss the entire analysis due to this single limitation.

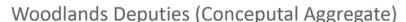
The Sheriff's Office allocates nine taxpayer-funded deputy positions to The Woodlands. The Woodlands funds an additional 76 deputy positions. For simplicity, and due to both taxpayer-funded and contract deputies being responsible for the same administrative area, both taxpayer-funded and contract deputies were analyzed in combination.

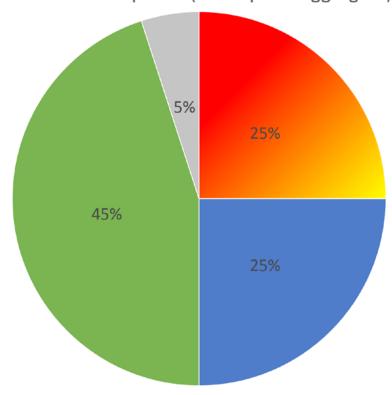
There was an average of 7.5 positions vacant during any given month within the analysis period.

Had Woodlands deputies been operating on the 12-hour schedule instituted in June of 2017, they would have been deployed with a day shift (6 a.m. to 6 p.m.), a swing shift (10 a.m. to 10 p.m.) and a night shift (6 p.m. to 6 a.m.). This would have equated to an average high of 17.4 deputies at its peak and an average 9.7 deputies at the low.

	AVG ON		AVERAGE DEPUTIES ON-DUTY DISTRIBUTION						
	DUTY	Mon	Tue	Wed	Thu	Fri	Sat	Sun	
12:00 AM	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	
2:00 AM	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	
4:00 AM	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	
6:00 AM	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	
8:00 AM	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	
10:00 AM	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	
12:00 PM	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	
2:00 PM	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	
4:00 PM	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	
6:00 PM	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	
8:00 PM	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	
10:00 PM	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	

MONTGOMERY CO. SHERIFF WOODLANDS CONTRACT AND TAXPAYER-FUNDED AVERAGE ON-DUTY DEPUTY DISTRIBUTION MODELED AS IF THE DIVISION HAD BEEN OPERATING ON 12-HOUR SHIFTS, JAN 16 TO IUN 17





■ Obligated ■ Administrative time ■ Unobligated time ■ Documented area patrols (unobligated)

During this time, had Woodlands deputies been operating on 12-hour shifts, they would have spent 25 percent of their time responding to citizen-initiated calls for service or conducting pro-active law enforcement activities such as traffic stops and criminal investigations. Again, the analysis allocated 25 percent of the total available time for administrative duties such as writing reports, coordinating with supervisors and completing paperwork. Had Woodlands deputies been operating on 12-hour shifts, 50 percent of their time remained, of which approximately five percent would have been spent conducting documented area patrols (emphasis to area patrols added on January 1, 2017). The remaining 45 percent would have been considered unobligated, during which deputies conduct restroom breaks, eat meals, engage in community policing or perform other functions (such as running radar in a school zone).

THE WOODLANDS TOWNSHIP AVERAGE DEPUTY WORKLOAD DISTRIBUTION, JAN 16 TO JUN 17













In-Service Admin

ANALYSIS AND INTERPRETATION

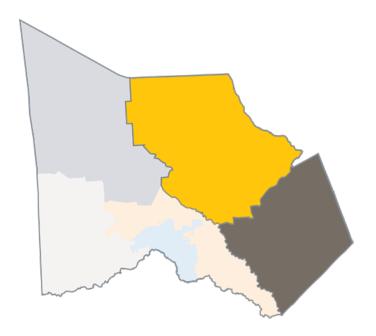
The Woodlands Division is adequately staffed to conduct community policing and COMPSTAT interventions.

PERFORMANCE OBJECTIVE RE-EVALUATION AND STAFFING PROJECTIONS

The initial performance objective of 50 percent unobligated time is feasible in The Woodlands. No additional personnel are required

CONCLUSION

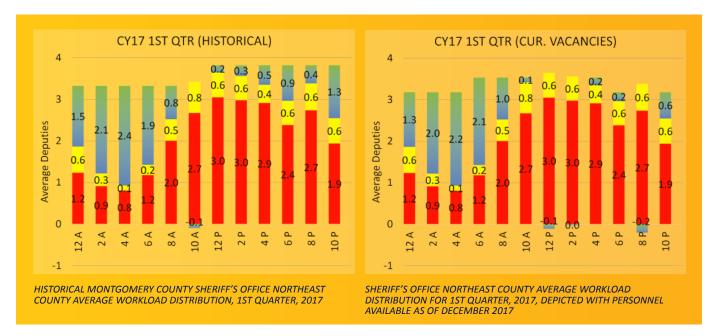
Conclusions are drawn to address patrol workload in the context of both the ability to meet citizen-initiated call for service demand and the anticipated transition from the traditional model of policing (which is reactive, random and frequently based on the "gut feeling" of police administrators) towards a strategy of COMPSTAT supported by a philosophy of community policing.

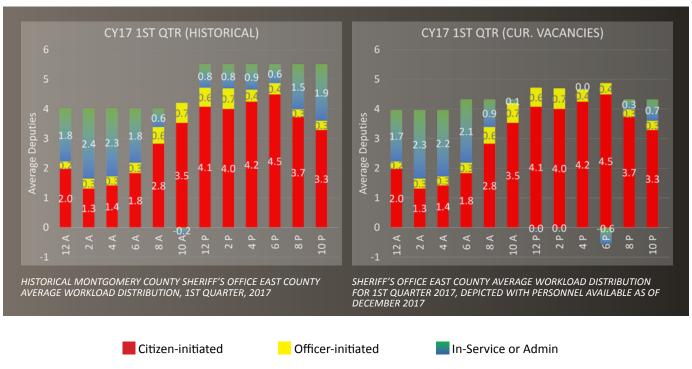


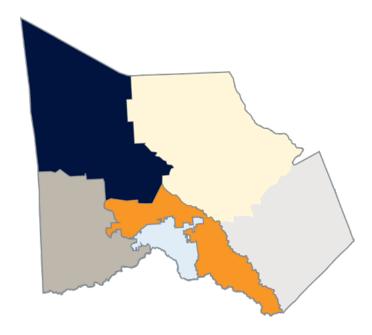
AREAS OF THE MOST CONCERN

Historically, citizen-initiated calls for service exceeded the average number of deputies on duty during two of six quarters examined in *East* County and one quarter of six examined in *Northeast* County and routinely neared capacity during the daytime hours in both areas. While the analysis showed deputies in these areas had an aggregate of approximately 20 to 22 percent of their total time unobligated, the majority of this time can be seen to have occurred from 12 a.m. to 6 a.m. During daytime hours, both these areas consistently had less than one deputy, if any, unobligated (or with the ability to even complete administrative tasks). It is reasonable to presume citizen-initiated call for service demand will overtake the Sheriff's Office current capability to respond in these areas in the future. In addition, due to citizen-initiated call for service demand, very little, if any COMPSTAT interventions and community policing are practical from approximately 8 a.m. to midnight on any given day of the week.

The number of vacancies for duty in both East and Northeast County (as well as other areas) has increased since the conclusion of the datagathering period of this analysis. Using historical data to depict current workload levels, while limited, provides the best possible picture of this increase.





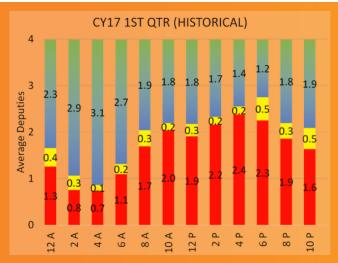


AREAS OF SOME CONCERN

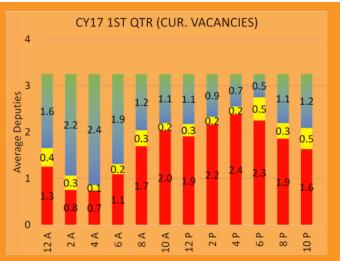
Historically, the southern, southwestern and northwestern portions of the county experienced periodic constraints during the analysis period, however, these were less than the east and northeast areas of the county. The analysis showed a range of 35 percent of total time (southwest) as unobligated to 47 percent (northwest). Citizen-initiated call for service demand typically peaked during daytime hours. Historically speaking, while COMPSTAT interventions and community policing would be more feasible in these areas than in the northeast and east, it is likely there would be constraints and challenges to meaningful implementation during daytime hours as these strategies competed intermittently with citizen-initiated call for service demands.

Similar to east and northeast county, the number of vacancies in these areas has increased since the conclusion of the data-gathering period of this analysis. Using historical data to depict current workload levels, while limited, provides the best possible picture of this increase.

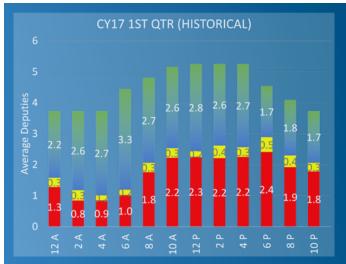
Vacancies have increased to a level that, while response to citizeninitiated call for service demand is not particularly degraded, robust strategies of COMPSTAT and meaningful community policing would be difficult, particularly in the Southwest County. It should be noted that citizen-initiated demand, as depicted, is static, but will likely continue to increase albeit at a steady pace.



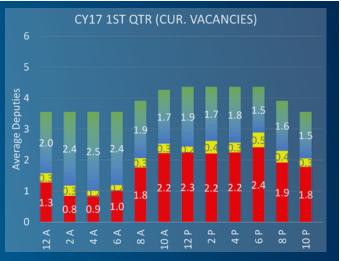
HISTORICAL MONTGOMERY COUNTY SHERIFF'S OFFICE SOUTHWEST COUNTY AVERAGE WORKLOAD DISTRIBUTION, 1ST QUARTER, 2017



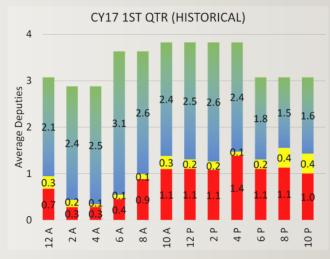
SHERIFF'S OFFICE SOUTHWEST COUNTY AVERAGE WORKLOAD DISTRIBUTION FOR 1ST QUARTER 2017, DEPICTED WITH PERSONNEL AVAILABLE AS OF DECEMBER 2017



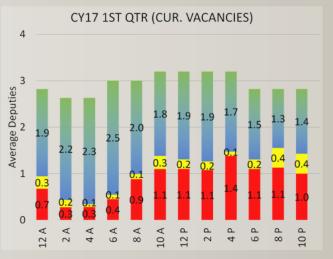
HISTORICAL MONTGOMERY COUNTY SHERIFF'S OFFICE SOUTH COUNTY AVERAGE WORKLOAD DISTRIBUTION, 1ST QUARTER, 2017



SHERIFF'S OFFICE SOUTH COUNTY AVERAGE WORKLOAD DISTRIBUTION FOR 1ST QUARTER 2017, DEPICTED WITH PERSONNEL AVAILABLE AS OF DECEMBER 2017



HISTORICAL MONTGOMERY COUNTY SHERIFF'S OFFICE NORTHWEST COUNTY AVERAGE WORKLOAD DISTRIBUTION, 1ST QUARTER, 2017



SHERIFF'S OFFICE NORTHWEST COUNTY AVERAGE WORKLOAD DISTRIBUTION FOR 1ST QUARTER 2017, DEPICTED WITH PERSONNEL AVAILABLE AS OF DECEMBER 2017

Citizen-initiated

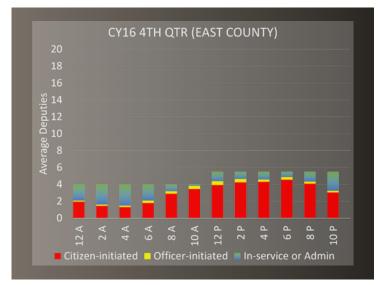
Officer-initiated

In-Service or Admin

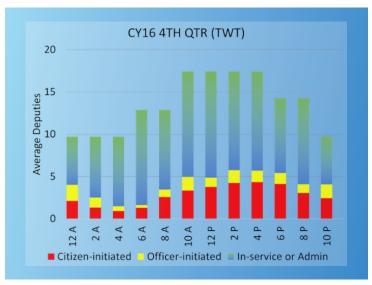
THE WOODLANDS

Historically, The Woodlands is able to meet citizen-initiated call for service demand and is in the best position to begin a robust COMPSTAT strategy and take steps to further community policing partnerships. While The Woodlands has experienced a similar increase in vacancies since the conclusion of the data-gathering period of this analysis, the contract between the Sheriff's Office and The Woodlands Township provides a "buffer layer" of personnel that serves to insulate the community from turn-over and other related personnel issues.

It is noteworthy that East County and The Woodlands have approximately similar citizen-initiated call for service demands. Contract personnel provide a great deal more flexibility, particularly when looking towards COMPSTAT interventions and community policing.



HISTORICAL MONTGOMERY COUNTY SHERIFF'S OFFICE EAST COUNTY AVERAGE WORKLOAD DISTRIBUTION, 4TH QUARTER, 2016



HISTORICAL MONTGOMERY COUNTY SHERIFF'S OFFICE THE WOODLANDS AVERAGE WORKLOAD DISTRIBUTION, 4TH QUARTER, 2016

CHALLENGES

The single biggest limiting factor towards implementing the strategies of COMPSTAT supported by a philosophy of community policing is personnel staffing. This challenge is readily apparent in Northeast and East County and of concern in Southwest, South and Northwest County.

The natural reaction to this challenge is by funding additional positions, implementing a "hiring surge" to combat rising vacancies and/or re-deploying personnel from seemingly "healthy" areas to areas in need.

It is critical to understand these "easy fixes" are not so easy.

The most significant challenge to resolving staffing-related issues revolves around a lack of qualified candidates both in Montgomery County and nationwide. Law enforcement has experienced what some might term a "recruiting crisis" for the past several years as most areas see drops in those who are both interested and eligible for positions. These problems seem to pre-date highly publicized controversial use of force incidents in places like Ferguson, Missouri and New York City (Curtis, 2017; Sisak, 2015; Smith, 2016). Currently, agencies compete among each other to hire the best applicants, and, at the worst settle for applicants who might not have "made the cut" in years prior.

A glance at Montgomery County Sheriff's Office recruitment and hiring trends reveals the local impact of this national issue. Applications received for all vacancies in 2016 fell 22 percent from the previous year and, of that total, only 10.6 percent of those received were eligible and approved for hire with the Sheriff's Office. Even with recruitment enhancements including the implementation of a digital application process as well as efforts to attract a larger candidate pool, the hiring rate has continued to fall. As of this writing, the Sheriff's Office recruitment section has successfully increased the application volume to 103 percent over 2016's total. Despite this, the offer rate to those who are eligible has fallen to 7.3 percent.

In plain words, the Sheriff's Office has more than doubled the applicant volume, and has still lost ground proportionally.

Some authors have offered explanations for hiring difficulties which range from an improved economy, to the occupational hazards of policing, to the image of policing in the media as reasons for an increase in vacancies (Police Departments Struggle to Recruit Enough Officers, 2017). Others indicate difficulties lie

in factors such as high hiring standards, such as those involving prior drug use, which appears to have become more socially acceptable in recent years, coupled with rigorous and lengthy background investigations (Wilson, Dalton, Scheer, & Grammich, 2010).

Turnover (when a qualified candidate leaves one agency to work at another, retires or makes a career change), while not seemingly as dire, plays a situational role in the staffing equation.

Turnover nationwide has seen an uptick in recent years as "baby boomers" retire in both law enforcement and other industries along with other factors (Wilson, Dalton, Scheer, & Grammich, 2010). Studies between 2001 and 2008 show historical turnover in law enforcement agencies to have varied annually from about five to 21 percent (Wilson, Dalton, Scheer, & Grammich, 2010).

During 2017, the Sheriff's Office experienced a turnover rate of approximately nine percent. Two to three percent of his can be attributed to routine retirements or retirements which typically accompany the arrival of a newly elected official—essentially, a portion of retirement-eligible employees leave the agency because it proves a natural break-point to begin their retirement.

Since a "hiring surge" is not likely feasible due to the "recruiting crisis," a re-deployment of labor from one area of the county to another to "stop the bleeding," while tempting, is not practical.

Historical data was used to investigate and forecast the potential for re-deployment of personnel. Using historical staffing levels measured during the analysis, transfer of two to four positions within the taxpayer-funded patrol force appeared potentially feasible. Ultimately, however, when position transfer was forecasted using staffing levels at the time of this writing (December 2017), it became problematic.

In plain language, forecasting showed an area of the county could be "healthy" one day, and not the next due to one or two unanticipated resignations. This could lead to frequent position and personnel changes in order to keep up; a staffing shortage "wack-a-mole" of sorts (a reference to the carnival game where a player uses a foam mallet to knock down targets as quickly as he or she can as they pop up randomly and in rapid succession). In essence, an equitable distribution of deputies based on workload could easily end up being a "moving target."

In addition, the frequent re-deployment of positions and personnel has the potential to cause morale problems among the patrol force and continuity of leadership problems for supervisors.

Finally, continuous movement from area to area, while seemingly a "quick fix," is contrary to implementing a community policing philosophy

THE "WAY AHEAD"

The Sheriff's Office requires 81 new positions be funded over the next four years in order to meet the needs and expectations of the community and to transition from the traditional model of policing (reactive and random) towards a strategy of COMPSTAT supported by a philosophy of community policing.

Despite slower hiring, implementation of positions for future growth is critical. The Sheriff's Office does not intend to "wait until we have enough people to move forward." Staffing issues will persist in any industry and any organization that waits until everything is in perfect order before moving forward waits forever.

The Sheriff's Office continues to take measures in the meantime to maximize staffing efficiency: one of the most important is conducting regular and re-occurring training through the agency's on-line learning management system. This "eCampus" allows agency peace officers, detention officers and dispatchers to take courses on-line from either their home or their work center. This prevents them from having to be in a classroom for routine training when they could be in service in their assigned area.

The Sheriff's Office Strategic Plan contains strategies designed to complement the situation at hand. First, institution of the precinct model, nearly complete at the time of this writing, is the first major revision of Sheriff's Office administrative areas of responsibility since approximately 2001. In that time, roads and population density has changed; newly designated administrative boundaries designed in consideration of travel will aid in efficiency and maximizing time for COMPSTAT and community policing.

Next, the campus master plan will focus on deliberate growth and facilities use. A concept emerging early on is the need for a temporary detention facility in Southwest County. Currently, "satellite" facilities in East County and South County reduce the travel time an arresting officer (Sheriff's Office or otherwise) expends in the process of booking a defendant. Instead of driving all the way to the main jail in Conroe, deputies in South County take

most prisoners to the facility located in The Woodlands and deputies in East County take most of their prisoners to the facility located near the intersection of US Highway 59 and the Grand Parkway, saving considerable travel time. Currently, deputies (and other officers) who make an arrest in Southwest County (the Magnolia area) must transport their prisoners to Conroe or the facility located in The Woodlands. Either trip requires transit on FM 1488 which is heavily used during the day.

Finally, in consideration of this patrol workload analysis, the Sheriff's Office will continue with the implementation of an COMPSTAT program, though in consideration of staffing challenges faced in some areas. Initially, an intensive, high-accountability COMPSTAT program instituted in areas such as Northeast and East County risks failure without enough personnel to implement real and meaningful solutions.

Ultimately, the Sheriff's Office requires 81 additional patrol deputy positions be funded over the next four years. This is only the first step in the effort to match agency growth with county growth. This growth is not simply proportional to a simplistic factor such as population, but growth in the manner of how the Sheriff's Office will deliver services. In other words, not just maintaining a capacity to respond to citizen-initiated calls for service, but to provide meaningful COMPSTAT supported by a philosophy of community policing in order to reduce crime and the fear of crime.

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