



Public Safety Workload Analysis



Windsor Heights Police Department

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Windsor Heights Fire Department

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1133 66th Street
Windsor Heights, Iowa 50323

December, 2018

Public Safety Director E. Chad McCluskey



GOVERNMENT

Dave Burgess, Mayor
Zachary Bales-Henry, Councilman
Threase Harms, Councilwoman
Joseph Jones, Councilman
Mike Jones, Councilman
Mike Loffredo, Councilman

Elizabeth Hansen, City Administrator

Erin M. Clanton / Matthew S. Brick, Brick Gentry P.C. – City Attorney

Travis Cooke – City Clerk
Jessica Vogel – Deputy City Clerk / Communications Specialist
E. Chad McCluskey – Public Safety Director / Chief of Police and Fire Services
Dalton Jacobus – Public Works Director
Sheilah Lizer – Building and Zoning Official
Michele Denkinger – Parks and Recreation Coordinator

THE COMMUNITY

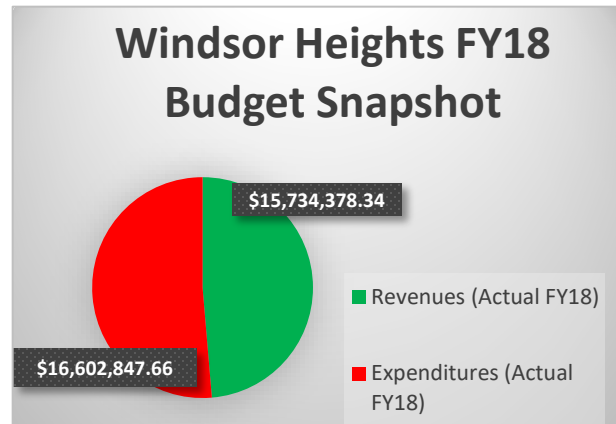
Incorporated on July 19, 1941, the City of Windsor Heights, Iowa is located in Polk County and the City is part of the Des Moines, Iowa metropolitan area. With a population of approximately 4,860 living in approximately 2,289 households, the City encompasses 1.41 square miles of land with bordering communities including Clive to the west, Des Moines to the east, Urbandale to the north and West Des Moines to the south. The estimated median income for a household is at \$55,931, while the median family income for the City of Windsor Heights is estimated at \$65,536.

The community enjoys a mix of residential, multifamily and commercial properties. The City is home to the highest grossing WalMart Store in the State of Iowa, which also is the only WalMart store with a main line Des Moines Area Regional Transit (DART / public transportation) stop in the metropolitan area. Next to WalMart is one of two metropolitan Sam's Club's and HyVee has a grocery store in the southwestern part of the City. Other small businesses, restaurants, and services are also present within the City. In addition, the DART hub located in the parking lot of WalMart and Sam's Club is the busiest Metropolitan DART hub outside of the Downtown Des Moines corridor, leading to high influxes of pedestrian and transient traffic.

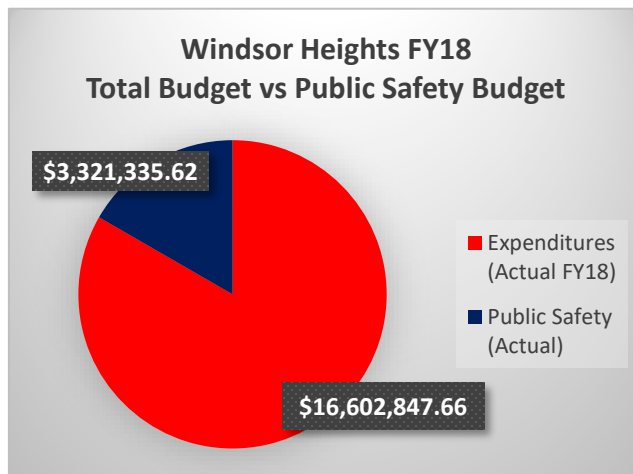
FINANCIAL SNAPSHOT

The City of Windsor Heights operates on a fiscal year of July 1 through June 30. The City levy rate is \$16.58088 as of the FY18 budget year (July 1, 2017 through June 30, 2018). As of January 2017, property valuation within the City had risen 9.46% over the previous valuation reported in January, 2016.

Actual revenues for FY18, ending June 30, 2018 were \$15,734,378.34, while actual expenditures for FY18, ending June 30, 2018 were \$16,602,847.66.



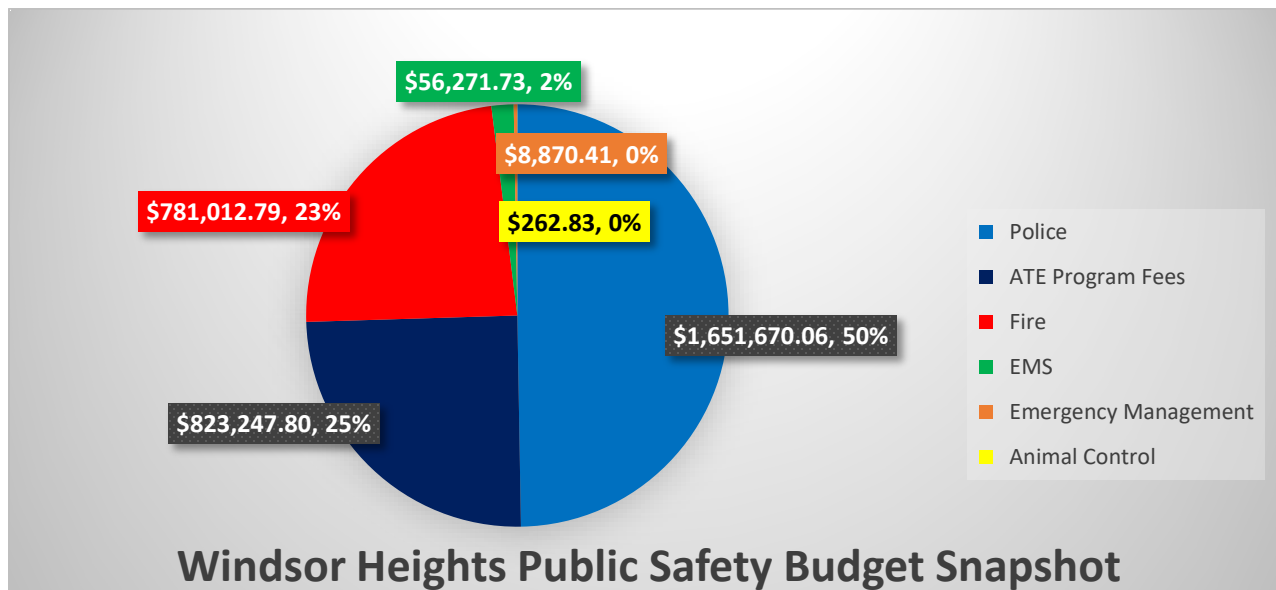
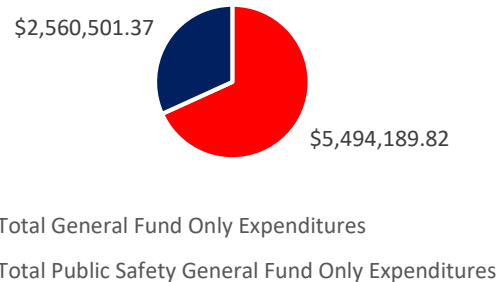
Actual expenditures for Public Safety (including Police, Fire, EMS, Animal Control, and Emergency Management) for FY18 were \$3,321,335.62. Approximately 20% of the City's actual total expenditures for FY18 went towards Public Safety. Windsor Heights is unique in comparison to other communities as no general fund monies are budgeted for Public Works, and most other comparable communities do not expend



funds out of their Police Budgets for the Automatic Traffic Enforcement programs – which, in FY18, added an additional \$823,247.80 burden to the Police Department fee line item. As a result, all departments funded through the general fund appear to have a higher percentage of the budget than would be present if the Public Works budget was part of the general fund. Furthermore, the Police budget appears at an inflated rate because of the over \$800,000.00 in ATE program fees.

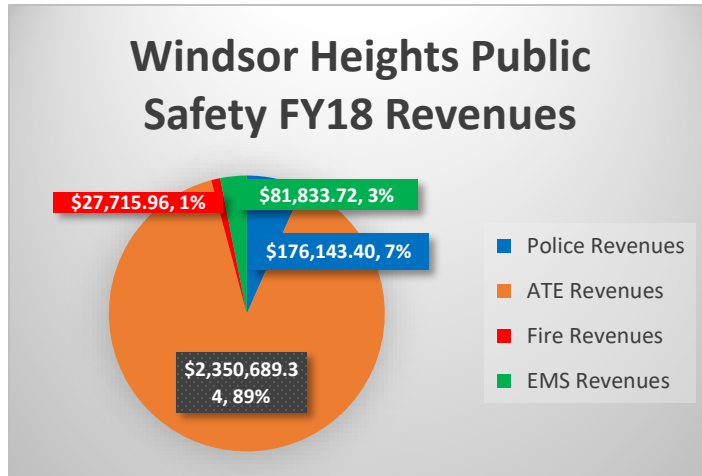
If a review is completed looking at only FY18 actual general fund expenditures, excluding other funds/restricted funds, the City of Windsor Heights had actual general fund expenditures of \$5,494,189.82 in FY18. The total actual general fund expenditures for Public Safety totaled \$2,560,501.37, or 46.60% of all general fund expenditures. The total actual Public Safety expenditures include \$823,247.80 expended for ATE program fees, which if removed from the Police fee line item would result in the total Public Safety impact to the overall general fund budget of 31.62%.

FY18 ACTUAL GENERAL FUND ONLY EXPENDITURE VIEW



FY18 Public Safety expenses include Police, Fire, EMS, Emergency Management and Animal Control funds, as noted above. The table below illustrates the break down for each fund/department.

Department	Expenditures	% of Public Safety	% of Total Budget
Police	\$1,651,670.06	49.73%	9.95%
ATE Program Fees	\$823,247.80	24.79%	4.96%
Fire	\$781,012.97	23.52%	4.70%
EMS	56,271.73	1.69%	0.34%
Emergency Management	\$8,870.41	0.27%	0.05%
Animal Control	\$262.83	0.01%	0.00%



Total revenues for FY18, ending June 30, 2018, were \$15,734,378.34. The Police Department was responsible for \$2,526,832.74 in income, including \$2,350,689.34 in revenues from the Automated Traffic Enforcement (ATE) program. While \$2,350,378.34 was the actual gross revenue from the ATE program, the program had expenses totaling \$823,247.80 – for a net revenue of \$1,528,116.50.

In addition, the Fire Department had revenues of \$27,715.96 from sources such as rental and commercial inspections. Finally, Ambulance billing resulted in revenues of \$81,833.72.

POLICE DEPARTMENT

The Windsor Heights Police Department provides 24-hour, full-service law enforcement coverage to the City of Windsor Heights. The mission of the Police Department is to safeguard the lives and property of those we serve, to reduce the incidence and fear of crime, and to enhance public safety while working with the community to improve their quality of life. The goal of the Police Department is to build strong community partnerships, provide quality and professional policing services to collaborate towards preservation of peace, order, safety, and problem resolution. Police Department personnel are held to the highest of standards of integrity and ethics.

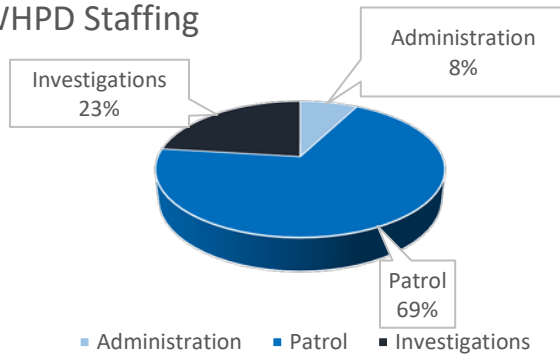
The Police Department has an array of roles within the community. These roles include proactive patrols, targeted patrols, quality of life issue mediation/resolution, reactive responses to crimes and disorder, investigation of crimes, and value-added services such as identification fingerprinting and accident reporting. Officers are likely to be the first contact for those living and visiting our community who encounter any type of problem. Officers mitigate many issues throughout their workday to include mental health issues, substance abuse issues, neighborhood disputes and other non-criminal complaints.

The Windsor Heights Police Department currently employs fourteen full-time staff members, thirteen of which are certified/sworn officers. Two (2) reserve officers also support the department assisting on larger events, such as parades.



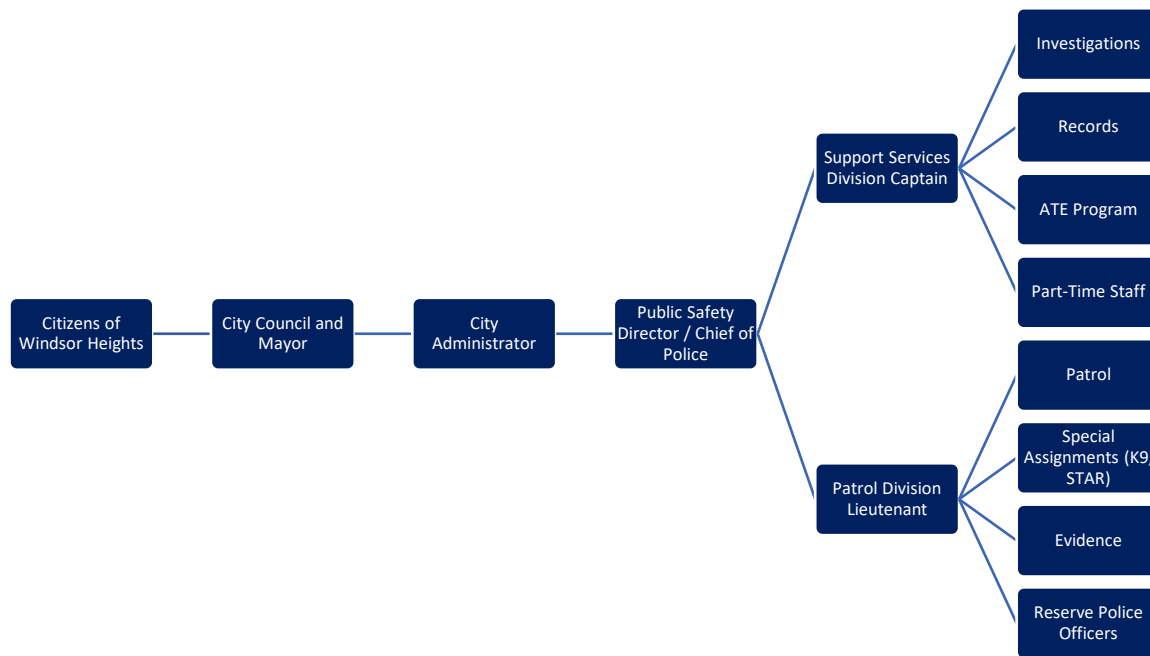
PATROL DIVISION

WHPD Staffing



The Patrol Division consists of nine members of the department, including the Patrol Commander, Lieutenant Pearson. The Patrol Division is responsible for education, enforcement, community relations and incident reporting. The Patrol Division comprises 69% of the Police Departments sworn officers. The International City/County Management Association (ICMA) Center for Public

Safety Management opines patrol staffing should make up at least 60% of the total number of sworn officers.



CURRENT WINDSOR HIEGHTS POLICE DEPARTMENT ORGANIZATIONAL CHART

Officers below the rank of Lieutenant are members of the Teamsters Local 238 collective bargaining unit and negotiate their contract with the City every three years. The current contract is in effect from July 1, 2017 through June 30, 2020.

Patrol officers currently work a 10-hour shift schedule with set days off. Officers are assigned to one of two “crews” based on their days off. Days off rotations are Monday / Tuesday and Thursday / Friday. In addition, officers are off-duty every other weekend. All officers normally work on Wednesday each week, and Wednesday is typically used as training days to help maintain officer certifications.

WINDSOR HEIGHTS POLICE SCHEDULE

Example Week 1:

Crew	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
1	Work	Work	Work	Off	Off	Off	Off
2	Off	Off	Work	Work	Work	Work	Work

Example Week 2:

Crew	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
1	Work	Work	Work	Off	Off	Work	Work
2	Off	Off	Work	Work	Work	Off	Off

WINDSOR HEIGHTS POLICE SHIFTS

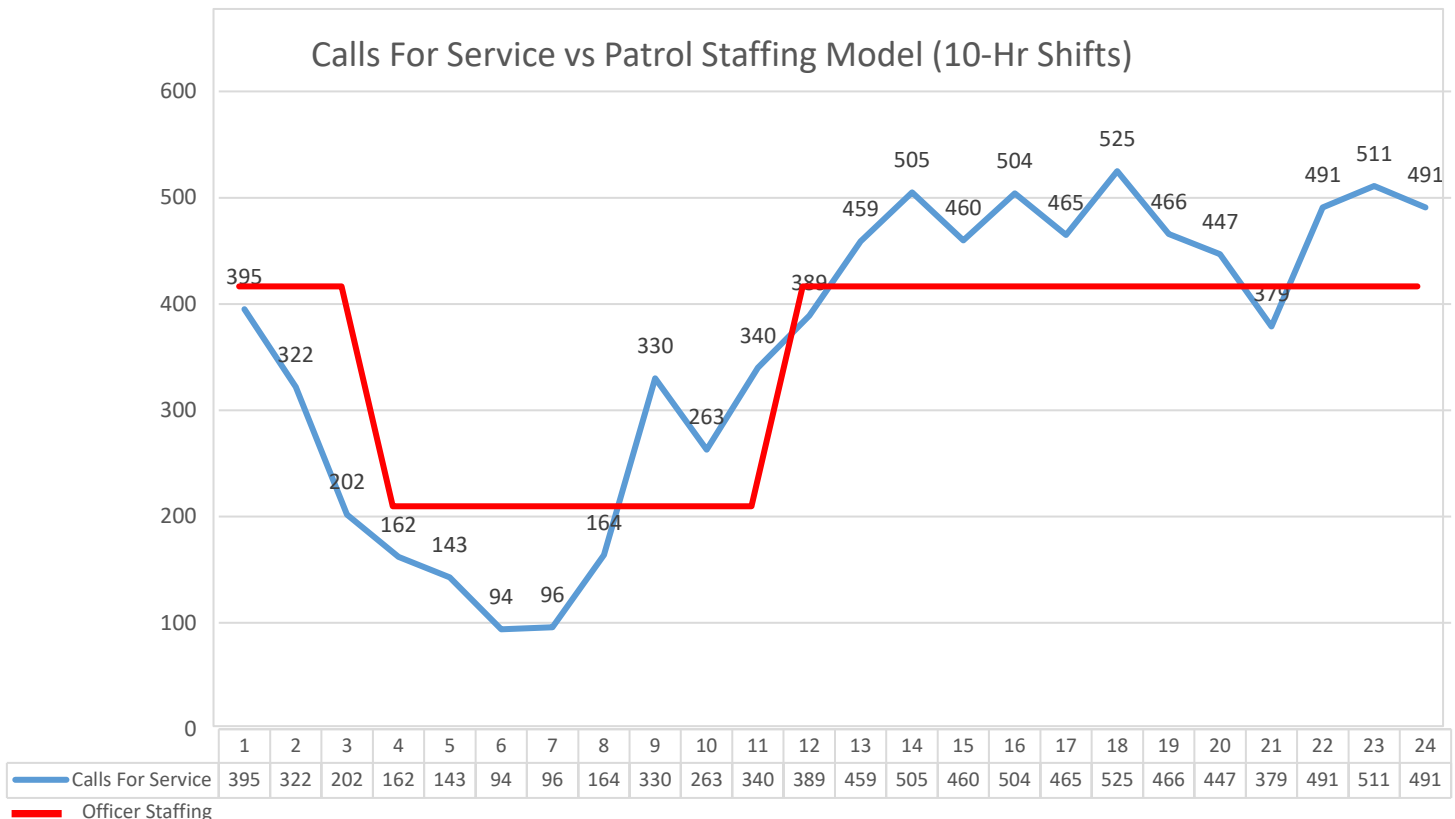
Day Shift (7am – 5pm)			
	Early Swing (11 am – 9pm)		
		Late Swing (5pm – 3am)	
			Night Shift (9pm – 7am)

The current patrol staffing schedule allows the most effective and efficient deployment of current authorized personnel for coverage, however there are still 8 hours of each day when only one officer is on duty (3am – 11am) with the exception of Wednesday. Operations with one officer on-duty pose significant officer safety concerns as outside agencies must be relied upon for any type of assistance/back-up should more than one officer be required on an incident. Adding to the safety concerns, the Windsor Heights Police Department (and Fire Department for that matter) operate on a radio system controlled by Polk County and are dispatched by Polk County. Des Moines has their own radio system and the other three contiguous cities all operate through WESTCOM dispatch. This adds a great deal of risk to our officers as there is no direct communication with our neighboring communities. Furthermore, our neighboring departments cannot scan our channel to potentially hear a need for additional resources, and the flow of information when an officer is requesting additional resources must go through Polk County dispatch to another dispatch center before additional units are sent. Complicating the issue even more, WESTCOM utilizes “closest unit dispatching” and Windsor Heights units are automatically handicapped in responding to help the neighboring communities by a 4-minute delay built into WESTCOM’s dispatching software as a result of not being on the same radio system. Not only is this not ideal, but this is a major safety concern for officers – particularly those on duty from 3am to 7am when no immediate backup is available. After the 7:00 to 8:00 am hour, there is normally someone in investigations or administration that can quickly respond to assist the on-duty patrol officer if needed. Historically, most major incidents and officer-involved shootings are over within seconds, further stressing the need for quick response when needed. The speed at which law enforcement situations turn deadly, added to the theory that officers

lose 50 percent of their strength in the first 30-seconds of a fight, demonstrates the critical necessity of timely backup when necessary.

A duty shift with only one officer on duty also creates a bottleneck in officer's abilities to respond to calls for service. The officer must resolve one call before they can respond to a second call, versus having a second officer who could either respond or break free from one call to respond to a second call for service. The 7am to 11am period of time when the shifts run with only one officer encompass morning rush hour traffic and the pre-school period for local elementary schools. Not having two officers on duty also severely limits the ability of the department to provide proactive policing strategies during staffing shortages.

The department has done a good job of allocation of resources based on call load under the current staffing model. As shown in the graph below, resources (red line) closely mirror the calls for service trend (blue line) throughout the FY18 timeframe. It is critical to note, while staffing graph mirrors calls for service trends, there is only one or two officers on duty at any given time with the exception of Wednesday. Also important to note is call volume tends to increase starting at the 7:00 to 8:00 am hours and steadily rises through mid-afternoon.



An equally important component is the need to calculate staffing relief into any analysis of workload. Staffing relief, according to Citygate Associates, LLC management consultants, who have completed several comprehensive services and delivery reviews of police departments across the United States, is a term that describes the number of

personnel it takes to provide coverage for a scheduled position or deploymentⁱ. This staffing relief calculation considers necessary staffing to account for vacation, sick leave, training, and work-related injuries. Citygate does note the actual time needed for each agency may vary dependent upon actual leave allocations, utilization, injuries and training. Citygate cites, at a minimum, it takes 5.25 full time equivalents (FTE's), for a single officer to be staffed 24/7/365. Based on this formula, 10.5 FTE's would be required to staff two officers on each shift. Windsor Heights Police Department currently has 8 officers assigned to patrol duties, indicating an additional three officers would be necessary to staff 2 officers on a 24/7/365 basis.

The Washington State Auditor's Office lead initiative, the Local Government Performance Center, issued a report in October of 2012 entitled "*Calculating Staffing Needs using the Relief Factor Method: Determining the amount of staffing resources needed to cover a staffing post.*" This report, prepared by FLT Consulting, Inc. provides a guide for staffing one police officer "post" 24/7/365. This method utilizes a formula based on determining the amount of coverage needed compared to amount of available staff time. The report averages various leave at 18.4% per year, including jury duty, sick leave, vacation, military, bereavement, FMLA, disability, leave without pay, training absences (include new hire training), mandatory in-service training, optional training, and vacancy hours. Based on 24-hours coverage and calculating 10-hour shifts, this formula would equate to 4.13 FTE's necessary, *on average*, to cover a single 24-hour day. It is important to note FTE's cannot be split into percentages, so any number over a whole number would equate to an additional FTE necessity. In this calculation, we would need five officers per day for 24-hour coverage, which would indicate a need for 10 officers in patrol (5 per crew). Currently, we staff eight officers assigned to patrol duties and this model indicates the need for two additional FTE's in patrol. The Patrol Commander is not assigned to a patrol shift, and therefore not included in these calculations, as he provides administrative supervision over the patrol officers.

During FY18 (July 1, 2017 through June 30, 2018), the Patrol Division handled 8,603 calls for service. 2,652 of those calls were traffic stops, which accounted for 30.83% of the total Patrol calls for service. Of the remaining 5,951 calls for service, the top five highest classifications included building checks, citizen requests to speak with an officer, assist officers/agencies, suspicious characters/circumstances, and traffic accidents. These top five classifications were closely followed, in call volumes, by disturbance and shoplifting calls.

During FY18, officers spent a total of 4,533 hours and 32 minutes assigned to calls, with the average call requiring 41 minutes to resolve. In a 365-day year, there are a total of 8,760 hours (24 hours multiplied by 365 days), so officers were committed 51.75% of the available time throughout FY18. Traffic stops accounted for 1018 hours and 23 minutes in FY18, or 11.62% of an officer's total available time. If traffic stops are removed from the overall time calculations, officers were still committed for a total of 3515 hours and 9 minutes, or 40.13% of the total available hours in a year.

The following pages include a list of calls by type, the total number of each type of call, the average time spent on each type of call, and the total time spent on each call type through FY18.

Call Type	Total # of Calls	Avg Time Expended	Total Time Expended
ABANDONED VEHICLE	48	0:21	16:59
ACCIDENT	296	0:40	199:22
ALARM SILENT	6	0:07	0:46
ANIMAL CALL	256	0:34	148:47
ASSAULT	17	0:32	9:13
ASSIST OFFICER/AGENCY	474	0:30	237:07
ATTEMPT TO LOCATE	14	4:04	57:01
AUDIBLE ALARM	63	0:12	13:22
BAR CHECK	31	0:06	3:35
BROADCAST	38	0:38	24:40
BUILDING CHECK	513	0:07	68:12
BURGLARY	63	0:49	52:16
CHASE OR PURSUIT	7	0:13	1:33
CHILD IN NEED OF ASSISTANCE (CHINA)	22	0:15	5:34
CIVIL CASE	2	0:17	0:34
COMMERCIAL FIRE	42	0:21	14:58
CONTROLLED BURN	1	0:06	0:06
DEBRIS IN ROADWAY	31	0:18	9:48
DISPUTE/DISAGREEMENT	194	0:34	110:56
DOMESTIC	97	0:46	75:01
DPQ	68	0:14	16:37
DRIVEBY SHOOTING	1	0:19	0:19
FIGHT	17	0:42	12:09
FOLLOW UP	155	0:27	71:17
FRAUD	66	0:44	49:24
GUNSHOTS	7	0:17	2:03
HARASSMENT	30	0:49	24:41
HAZMAT ASSIGNMENT	10	0:29	4:52
HIT & RUN	52	0:45	39:21
IDENT TRIP	144	0:14	34:41
ILLEGAL DUMPING	3	0:14	0:43
ILLEGAL PARKING	217	0:11	41:50
IMPOUND RELEASE	7	0:23	2:45
INCOMPLETE 911 CALL	94	0:11	18:30
INDECENT EXPOSURE	1	0:00	0:00
INFORMATION	105	5:32	581:47
INTOXICATED PERSON	20	0:47	15:54
INVESTIGATION ASSIGNMENT	13	0:42	9:12
KNOCK AND TALK	1	0:17	0:17
LARCENY MOTOR VEHICLE	13	0:39	8:35
LOST PROPERTY	7	0:29	3:28
MENTAL PROBLEM	12	0:48	9:38
MESSAGE	490	0:24	203:32
MISCELLANEOUS TRIP	241	0:22	90:58
MISSING PERSON	14	0:33	7:54
NARCOTIC ACTIVITY	29	0:33	16:09
NULL	9	0:55	8:15
OFFICER EMERGENCY	1	0:03	0:03
OPEN DOOR	14	0:12	3:01
OWI	11	1:12	13:21

PERSON DOWN	1	0:01	0:01
PUBLIC ASSIST	209	0:26	90:54
PUBLIC WORKS INFORMATION	21	5:17	111:05
RADAR SETUP	10	0:20	3:29
RECKLESS DRIVER(S)	64	0:26	28:09
RECOVERED/FOUND PROPERTY	46	0:36	28:13
RESCUE ASSIGNMENT	1	1:52	1:52
RESIDENTIAL FIRE	14	0:33	7:48
ROADS HAZARDOUS/BLOCKED	15	0:52	13:12
ROBBERY	10	1:02	10:29
RUNAWAY	16	1:13	19:28
SEARCH WARRANT	1	0:04	0:04
SEXUAL ASSAULT	8	0:37	4:57
SHOOTING	3	0:18	0:54
SHOPLIFTER	204	1:10	239:38
SPECIAL WATCH	92	0:19	29:30
STAB/GUNSHOOT - OVERRIDE	2	0:06	0:13
STALLED VEHICLE	181	0:17	51:49
STILL ASSIGNMENT	14	1:13	17:12
STRUCTURE - FIRE	1	0:31	0:31
SUICIDE	22	1:05	23:55
SUSPICIOUS	465	0:22	177:52
TEST EVENT	6	0:00	0:03
THEFT	149	0:56	139:17
THREATS	10	0:52	8:46
TRAFFIC SIGNAL PROBLEM	18	1:06	19:55
TRAFFIC STOP	2652	0:23	1018:23
TRANSPORT	10	0:55	9:19
TRESPASS	18	0:39	11:54
UNKNOWN PROBLEM	44	0:39	9:47
VANDALISM	28	0:37	17:21
VEH IN DITCH DUE TO ROADS	4	2:03	8:14
VEHICLE UNLOCK	19	0:15	4:53
WANTED PERSON	48	0:41	33:30
WELFARE CHECK	130	0:22	49:49
WIRES DOWN - ELECTRICAL HAZARD	10	0:09	1:39
	8603	0:41	4533:32

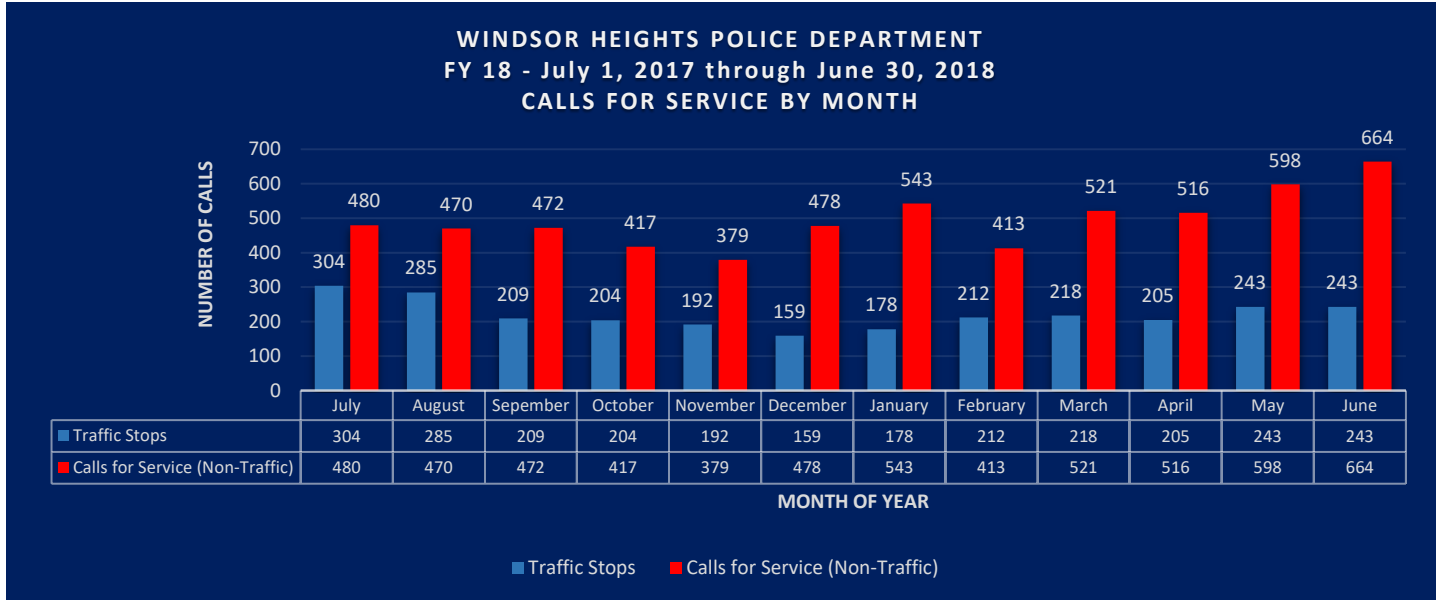
Some analysts discuss dispatched calls for service versus officer initiated traffic stops, whether those traffic stops are “optional” activity, and whether traffic stops should be counted in any type of analysis. Traffic stops are a critical component of proactive policing and community caretaking functions. Numerous reports of reckless drivers and speeding come into the Police Department from our citizens regularly, and citizens demand attention to these issues. Officers spend time monitoring these areas and then initiate traffic stops based, in part, on these complaints. Many traffic stops result from dispatched calls for service, such as impaired drivers and suspects to other crimes (i.e. shoplifting and disturbances). Officers can create unnecessary liability to the City for not acting when they see some traffic violations, such as an apparent impaired driver. If that driver were to be involved in an accident and injure someone, the question will arise surrounding why the officer did not act prior to the accident. Similarly, numerous high-profile cases have been solved as a result of a seemingly minor traffic offense. For example, Timothy McVeigh, the 1995 Oklahoma City Bombing suspect, was apprehended as the result of a traffic stop initiated by the Oklahoma Highway Patrol related to a tag violation.

Unbeknownst to the Oklahoma State Trooper who initiated the stop, McVeigh would later be identified as the suspect and he was already in custody on traffic charges and a charge of illegal possession of a firearm located during the traffic stop.

Currently, just under one-third, 30.83%, of the Windsor Heights Police Department activity is generated by traffic stops. The stops account for many arrests related to various criminal activity, including OWI, narcotics, and stolen property. A rash of burglary cases plaguing the City in August, 2018 were solved as the result of a traffic stop – leading to the arrest of several juvenile suspects. This activity is just as important to maintaining a safe community as responding to calls for service in only a reactive mode.

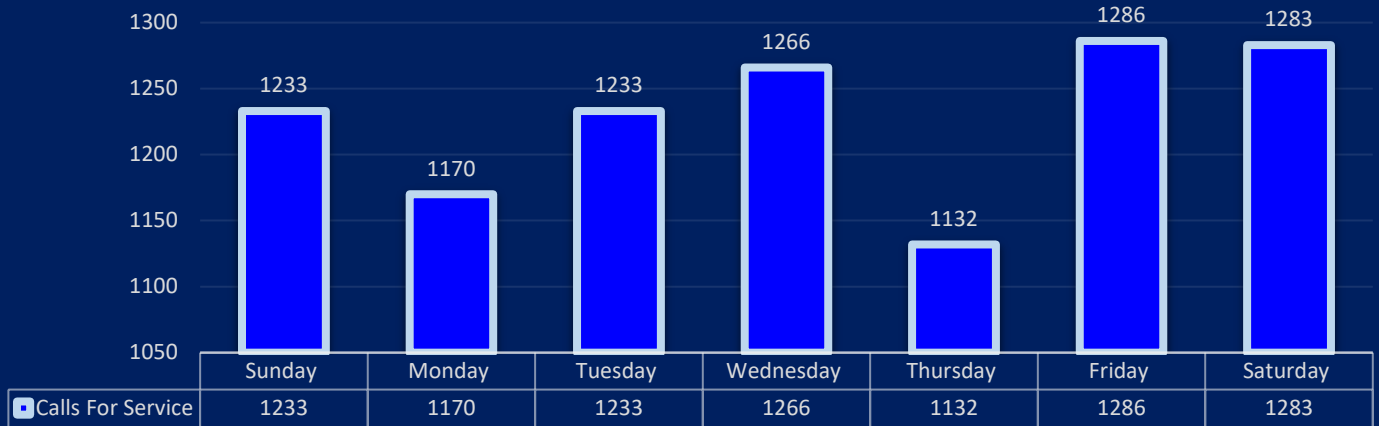
The busiest month for patrol related calls was June, and the busiest day of the week for patrol related incidents was Friday, closely followed by Saturday. Busiest times for patrol related incidents were during the 1:00 pm to 11:00 pm timeframe, with the highest number of calls during the 5:00 pm hour.

PATROL INCIDENTS BY MONTH

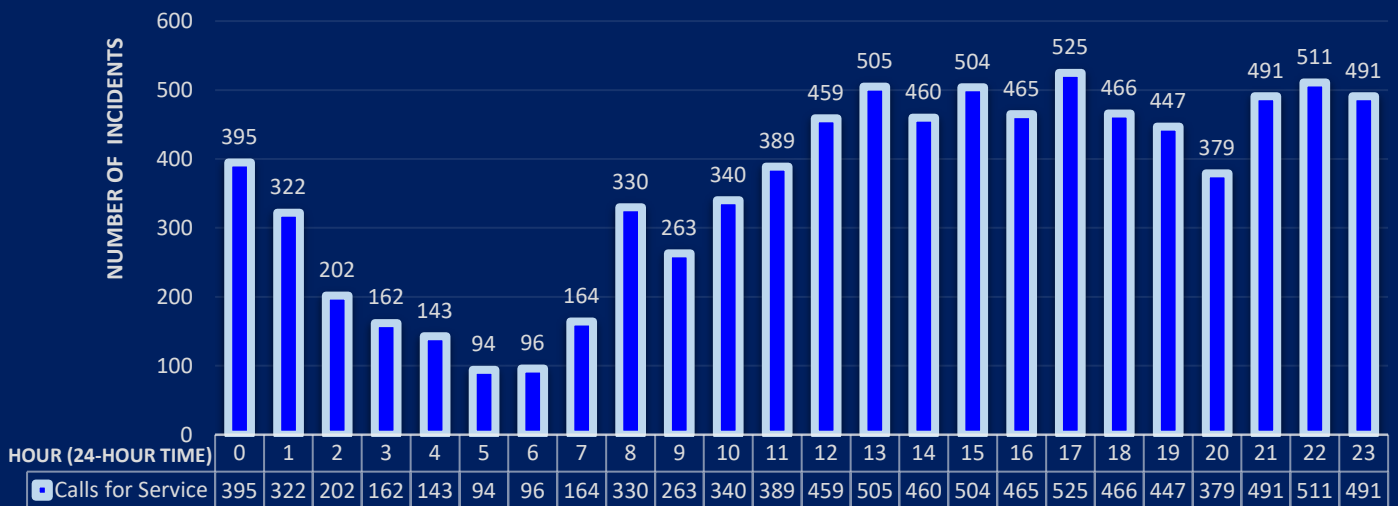


PATROL INCIDENTS BY DAY OF WEEK

WINDSOR HEIGHTS POLICE DEPARTMENT
FY 18 - July 1, 2017 through June 30, 2018
CALLS FOR SERVICE BY DAY OF WEEK

**PATROL INCIDENTS BY HOUR OF DAY**

WINDSOR HEIGHTS POLICE DEPARTMENT
FY 18 - July 1, 2017 through June 30, 2018
CALLS FOR SERVICE BY HOUR OF DAY



The International City/County Managers Association (ICMA) Center for Public Safety Management (CPM) developed the “Rule of 60,” which was alluded to earlier in this publication. The “Rule of 60” consists of two components. The first component, discussed on page 5 of this study, maintains that 60 percent of the sworn officers in a police department should be dedicated to patrol functions. The second component to the “Rule of 60” maintains that no more than 60 percent of patrol time should be “saturated” by workload demands from the community. In other words, ICMA CPM suggests that no more than 60 percent of available patrol officer time be spent responding to the service demands of the community. The remaining 40 percent of the time is the discretionary time for officers to be available to address community problems and be available for serious emergencies. Important to note, the “Rule of 60” patrol deployment does not mean the remaining 40 percent of time is downtime or break time. It is only a reflection of the point at which patrol officer time is saturated by calls for serviceⁱⁱ.

According to ICMA CPM, the ratio of dedicated time compared to discretionary time is referred to as the saturation index. ICMA offers patrol staffing is optimally deployed when the saturation index is slightly less than 60 percent. When the saturation index exceeds 60 percent, patrol manpower is largely reactive and overburdened with calls for service and workload demands. Conversely, when saturation index levels fall much lower than 60 percent, patrol resources may be underutilized and this could signal an opportunity for reduction in patrol resources or reallocation of police personnel.

ICMA warns against interpreting the saturation index too narrowly, however. Assumptions indicating saturation indices can never exceed 60 percent at any time during the day, or that in any given hour no more than 60 percent of the officer’s time be committed to calls for service should not be made. Changes should be examined when saturation index levels are at, or exceed, 60 percent for substantial periods of a given shift or at isolated and specific times during the day.

Most public safety workload analysis studies examine average time officers spent on calls during two, separate time frames. Typically, these studies look at workloads during winter months and during summer months. For this workload analysis, the months of July – August, 2017 (62 days) were compared with the months of January – February, 2018 (59 days) for the two cycles.

On average, during the summer months, officers spent 47 minutes on 1,539 total calls for service. During the winter months, officers spent an average of 45 minutes on 1,346 total calls for service. The time committed to calls for service during summer months accounted for 46.84% of available time, while time committed to calls for service during the winter months accounted for 63.00%. These times are calculated from the time the officer arrived on scene to the time the officer notified dispatch they cleared the call. These numbers typically do not include time spent writing reports for cases, as officers routinely clear calls and complete paperwork during periods when call loads decrease.

Noteworthy in the metrics mentioned above is the fact these metrics only include the initial, single officer dispatched to the call for service. Many call types require response of more than one officer, including calls such as OWI arrests, domestic violence incidents, robbery calls, etc. Due to the limitations of the Polk County 9-1-1 Computer Aided Dispatching (CAD) system, accurately accounting for the time expended by the second officer on such calls is difficult. We were able to identify 2,045 of the 8,603 calls for service noted on page 10 where multiple officers were required to respond. This accounts for approximately 24% of the calls requiring two or more officers, however developing accurate times to include in the following formulas was not possible. If accurate tracking were possible, those numbers would only lead to an increase in the officers committed time further highlighting the need for additional personnel to support the mission of the Windsor Heights Police Department.

Based on the data from FY18, officers committed time exceed the recommendation of the Center for Public Safety Management during the winter month comparison, although the overall and summer comparison were within the recommended guidelines. Worth noting, again, is while the overall average percentage of time committed falls below the 60% CPM guidelines, one can see how these numbers easily jump over the 60% mark at current staffing levels by examining the two winter months included in the data. The fact that 8-hours of each day is staffed by only one patrol officer cannot be over emphasized when reviewing the efficiency of the department.

Finally, a third formula explored in this study was developed by the International Association of Chiefs of Police (IACP)ⁱⁱⁱ. This formula has been applied throughout the United States and has been found to be very reliable in determining proper staffing needs of police departments. This formula uses an average of 45-minutes to complete a call for service, which - as noted above - is in line with actual average times for the Windsor Heights Police Department to resolve calls for service. The formula further takes into account the amount of time an officer is actually available for duty by averaging days off, holidays, vacation, sick time, etc. The formula also assumes that one-third of a police officer's time should be utilized handling calls for service, one-third of an officer's time should be spent on administrative duties, and one-third of an officer's time should be dedicated to proactive patrol, crime prevention and community relations.

To calculate the staffing needs of an agency using the IACP formula, the first step requires a determination of the number of calls for service in a year. The Windsor Heights Police Department fielded 8,603 calls for service during the calendar year 2017, as discussed above. The second step of this formula involves multiplying the total number of calls for service by the 0.75 (45 minutes), resulting in a total of 6,452.25. The third step calls for the 6,452.25 to be multiplied by 3 to add a buffer and time for preventative patrols. The total then realized is 19,356.75. Step 4, in the IACP formula, involves dividing the product by 3,650 – the number of hours necessary to staff one basic, one officer patrol unit for one year (10 hours x 365 days = 3,650) – resulting in a figure of 5.30.

Based on the IACP formula, it takes 5.30 patrol elements to handle the estimated 8,603 incidents for calendar year 2017. Since officers do not work every day of the year without any time off, we must determine the actual amount of time an officer is on duty. This will result in the number of officers required to staff patrol. For this calculation, an average of 1,992 working hours per officer is utilized. This number subtracts vacation, sick leave, and other types of time off. Subtracting the 1,992 working hours from the available 3,650 hours required to staff one patrol position, leaves 1,658 hours of actual available duty time. Dividing the 1,658 actual available duty time by 3,650 of total required time reveals 2.20 officers are required to fill each patrol position for 24/7 coverage. By multiplying the availability factor of 2.20 by the number of patrol elements required, you have the number of patrol officers needed to adequately staff the department on a 24/7/365 basis. This formula suggests 11.66, or 12 since we cannot split officers into fractions, are needed to adequately staff patrol. As a reminder, currently there are 8 officers assigned to patrol, excluding the Patrol Commander. To adequately staff the Patrol Division according to the IACP formula, an additional four (4) officers would need to be added to the department.

It is clear, regardless of which version of staffing calculations are used, the department is understaffed in patrol by a minimum of two officers, with an additional four officers needed to adequately staff all shifts on patrol. The staffing calculations utilized are not impacted by the normal daily work schedule (i.e. 12-hour shifts versus 10-hour shifts versus 8-hour shifts) of the officers, but rather are raw data driven decision points based on calls for service. Equally significant is the fact the data in the calculations is based on officers handling one call at a time, without the community waiting for an officer to respond to their issue based on the officer being committed to another call. We frequently “stack” calls for service, where officers prioritize one call over another causing a citizen in need to wait on the officer to clear another call. This leads to frustration on the part of the citizen as they may be trying to report a fraud, for instance, before going to an appointment or trying to beat rush hour traffic. Also important to note, the IACP formula examines only patrol officers needed and does not address support services, investigations, or administration. The two reserve officers are also not included in the calculations as reserve officers have fulltime jobs, unrelated to law enforcement, and typically are only available to assist with planned events. Reserve officers occasionally ride along with fulltime officers, but the coverage is sporadic at best and does not offer any sustainable relief for career personnel.

Further highlighting the need for additional personnel in the Patrol Division is the cost of overtime the department experiences as a result of officers having to cover shifts. While annual numbers are not available, for the first four months of FY18 (July – October, 2018), 42% of all overtime was attributed to officers covering patrol shifts. In the first four months of FY18, nearly \$12,000.00 was spent on overtime to cover shifts due to vacations, sick leave, training, or other absences. Overtime could be significantly reduced by properly staffing patrol shifts and alleviating the need for officers to scramble to fill shifts ensuring coverage for the community.

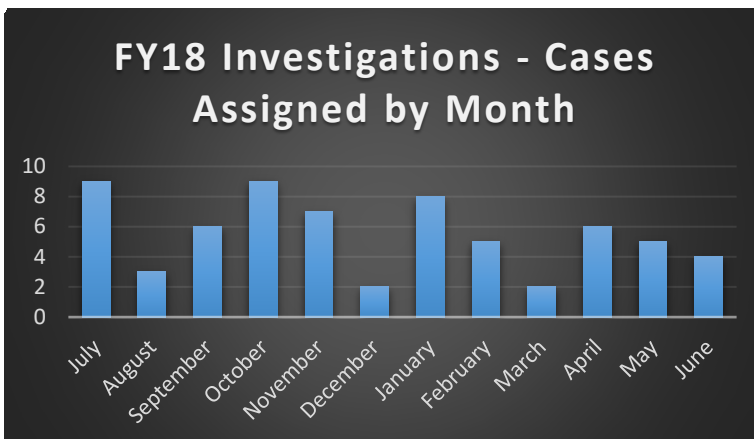
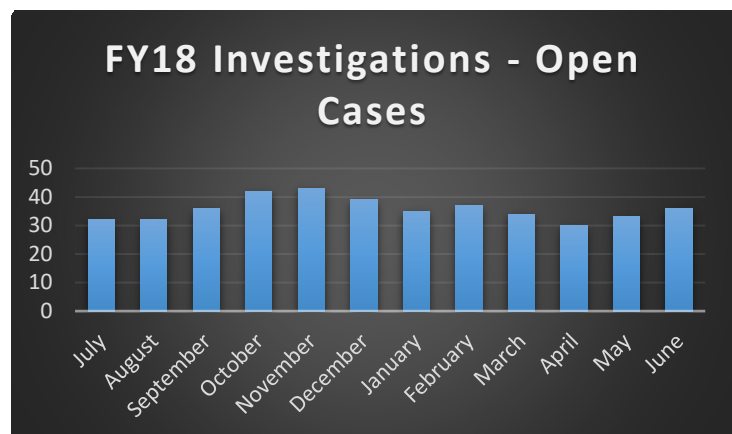
POLICE DEPARTMENT - SUPPORT SERVICES DIVISION

Three members of the department are currently assigned to the Support Services Division, including the Support Services Commander Captain Meyer. The Support Services Division is responsible for criminal investigations, case follow-up, providing support for the Patrol Division, management of the Automated Traffic Enforcement (ATE) project, and acting as liaisons between the Windsor Heights Police Department and other agencies, including prosecutors. This list is not inclusive of all duties of the Support Services Division, but rather gives insight into the primary tasks this division undertakes regularly.

Two of the members assigned to Support Services are investigators who follow-up on open cases, respond to assist patrol with calls for service, cover patrol shifts during staffing shortages and approve ATE violations. The two investigators rotate serving as a point of contact for after-hour needs so an investigator is always available to assist with investigations. Investigators are regularly called out to assist with death investigations, complex investigations, criminal follow-up, and search warrant preparation and service.

During the FY18 fiscal year, investigations was responsible for 314 hours of patrol coverage during periods of staffing shortages. This number does not represent the time investigations spent as a backup officer, but rather actual time spent as the primary officer for the City.

Investigations averaged 36 cases open per month, with an additional 6 cases assigned to investigations, on average, each month. Throughout the FY18 year, investigations cleared an average of 9 cases per month and another 3 cases per month were classified as inactive due to a lack of information to continue follow-up.



In addition to covering patrol shortages and assisting with follow-up and complex investigations, the two investigators are the primary personnel assigned to review ATE violations. Four patrol officers are also trained to review violations, and two of those assist with reviewing violations during their shifts. Most calls related to ATE violations are received

during business hours and the two investigators currently field those calls as well. Each of the 44,842 ATE citations issued in 2017 were reviewed by a sworn officer prior to the citation being issued to ensure validity. A significant number of staff hours are expended on reviewing the ATE violations, and those hours are not included in the statistics above as prior to June of 2018, those times were not tracked.

Captain Meyer, the Support Services Division Commander, is responsible for supervision of the investigators as well as the department records clerk. Captain Meyer is part of the department command staff and acts as the duty Chief in the absence of the Public Safety Director. Additionally, Captain Meyer performs the majority of the information technology functions concerning networking, computer operation, problem solving, and hardware updates for the entire City infrastructure.

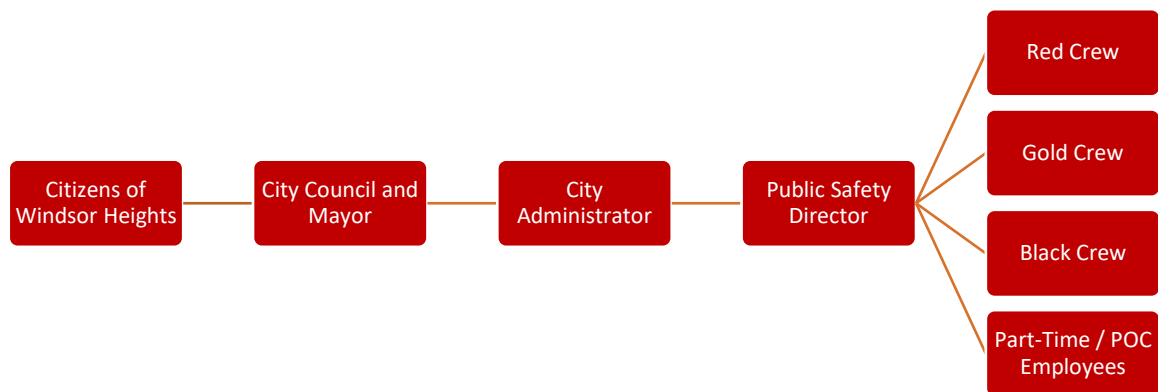
The department currently has one records clerk. In the recent past, two records clerks were present and the reduction of one has placed a huge burden on the records sections. The records clerk is responsible for answering the main department phone lines, assisting citizens who come into the Public Safety building during business hours, data entry of all cases and citations issued by Police Officers, data entry related to court dispositions and subpoenas for witness testimony, and acting as an office manager for the department. As a result of staffing only one records clerk, data entry of cases, arrests, and citations has fallen behind due to the records clerk not having the ability to keep up with all the duties previously completed by two personnel. In addition, when the records clerk is absent, or on vacation, sworn staff and command staff must fill in to ensure those who come to the police department for various reasons (copies of reports, fingerprints, paying fines, etc.) are serviced in an efficient and effective manner – stretching already stressed resources even further. Time spent on these tasks were not being tracked in the past and are not part of the above committed time matrix provided in this report.

RECOMMENDATIONS – POLICE DEPARTMENT:

1. As outlined using multiple studies above, the Windsor Heights Police Department is understaffed by a minimum of two officers. As a result of this study, it is recommended the fourteenth (14th) sworn position that was authorized in FY17 be reinstituted and that position be filled as soon as possible. A significant part of the cost associated with this position would be offset by the reduction in overtime. A fifteenth (15th) position needs to be part of a short-term plan to bring staffing levels to the minimum suggested by the research.
2. A second records clerk position needs to be filled as soon as possible to help with efficiency and alleviate the workload on the current records clerk. While this position is part of the budget amendment for FY18, the position is only funded through June 30, 2019 and this position needs to be a permanent position going forward.

FIRE DEPARTMENT

The Windsor Heights Fire Department provides 24-hour, fire and ambulance coverage to the City of Windsor Heights, meeting the requirements of Iowa Code 364.16. The mission of the Windsor Heights Fire Department is to improve the quality of life and safety of our citizens by providing the highest level of customer service through Fire Prevention, Community Risk Reduction, Emergency Response, and Training. The goal of the Fire Department is to prevent incidents of fire within the community, respond to those in need of medical and fire assistance, and continue striving to maintain the exceptional Insurance Service Office rating the City enjoys which translates to lower insurance rates for our residents.



CURRENT WINDSOR HEIGHTS FIRE DEPARTMENT ORGANIZATIONAL CHART

The Fire Department serves many roles within the community. These roles include responding to medical emergencies, responding to fire emergencies, performing life safety inspections on rental properties throughout the City, performing inspections on commercial properties throughout the community, and conducting fire education and prevention activities.

The Windsor Heights Fire Department currently employs five full-time staff members, two of which are certified as Paramedics and three of which are certified as Emergency Medical Technicians (EMT's). It is critical to note Paramedic level certified personnel can administer medication to those in need and perform advanced life support measures where EMT's cannot. With the aging population, injuries are more common and, in order to effectively treat many injuries, a Paramedic must be on site. For example, a fall victim who fractures their hip will likely experience excruciating pain. If a Paramedic is not on scene, no pain medication can be given to help alleviate the pain. In addition to the pain, the person could experience more severe medical problems, such as shock, if not properly treated. These examples highlight the need to staff full-time Paramedic certified personnel on all three Fire Department shifts.

In addition to the five full-time staff members, the Fire Department currently has fourteen part-time staff members, six of which are Paramedic level certified. Part-time staff members help cover gaps in scheduling. Due to the reduction of one Paramedic recently, the Fire Department has relied heavily on the Part-time staff members to ensure maintained Paramedic coverage. Also important to note, Part-time staff members have full-time jobs with other organizations and relying on them for regular shift coverage is not sustainable.

Finally, the Fire Department enjoys the assistance of fifteen paid-on-call staff members. These members are all trained to a level of Firefighter I and Firefighter II in-house, by our personnel, at a significant cost savings to the community versus paying for training. These personnel respond to calls for service and support the full-time and part-time cadre of personnel to ensure the Fire Department is able to function effectively and efficiently. Paid-on-call staff are paid based on their response to individual calls and they are paid for training time. Paid-on-call staff members rate of pay is based on the certifications each member holds.

Currently, the Windsor Heights Fire Department is staffed by one (1) Paramedic and one (1) EMT on two of three 24-hour shifts. The other 24-hour shift is staffed by a full-time EMT only, with part-time and paid-on-call personnel covering staffing needs on the third shift. In addition, during daytime hours, the Windsor Heights Fire Department has one (1) additional part-time member on duty the majority of the time for a total staff on-duty of three (3) per day.

The full-time staffing model for the Windsor Heights Fire Department should be more centered around Ambulance/EMS care or coverage than around actual firefighting coverage due to the incidents of EMS runs versus actual fire calls. A minimum of two personnel are necessary to operate the Ambulance. One person is required to drive the ambulance and a minimum of one more person is required for cases where the patient requires transportation to a medical facility. Operating with less than two members on-duty is not sufficient nor practical.

In contrast, the call loads and call types do not support a third position being filled 24-hours per day. While a minimum of three people are necessary for actual firefighting operations, the number of actual fires do not support three full-time personnel on a regular basis. In the case of an actual fire, automatic mutual aid is part of a standard response, and call back of personnel is in place to affect more resources for the incident. While these resources are not at the station when the call comes in, they can be deployed to the scene within a reasonable amount of time.

Another consideration for additional staffing stems from multiple calls for service taking place at the same time. During the FY18 (July 1, 2017 through June 30, 2018) timeframe, there were seventeen (17) occurrences where two simultaneous incidents occurred during the same period of time, accounting for less than 3% of all incidents requiring a Fire Department response. Three (3) occurrences resulted in three or more simultaneous incidents occurring during the same period, a total of less than 0.50% of all incidents. During the FY18 timeframe, \$130,135.07 was expended on part-time employees from the Fire and Ambulance/EMS budgets. This number could be reduced by staffing the third full-time paramedic and adjusting the number of hours part-time personnel are required to cover full-time shifts. This number will not be completely eliminated, as the part-time and paid-on-call personnel are critical to help with coverage from vacation, training, sick leave, etc., as well as necessary part-time and paid-on-call training expenses.

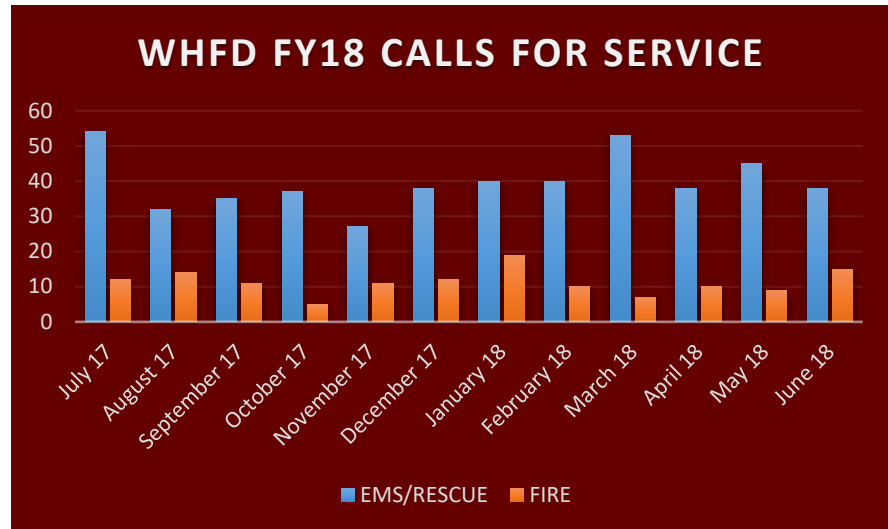
National Fire Protection Association (NFPA) Code 1720 sets the standards for the minimum requirements relating to the organization and deployment of fire suppression operations, emergency medical operations, and special operations to the public by volunteer and combination (career and volunteer) fire departments. The City of Windsor Heights population density is estimated at 3,447 residents per square mile and NFPA 1720 categorizes this density as "Urban."

To meet NFPA 1720 requirements, a minimum of fifteen (15) staff members need to respond to the initial full alarm assignment to a structure fire in a typical 2000 square foot, two-story, single-family dwelling, without a basement, and with no exposures, to provide full support to the operation. This number includes those responding from the Windsor Heights Fire Department, as well as automatic aid assignments for such incident. The NFPA 1720 required response time to get the fifteen members on scene is 9 minutes and this standard must be met 90% of the time for compliance. In addition, NFPA 1720 requires the fire department to have the capability for sustained operations, including fire suppression; engagement in search and rescue, forcible entry, ventilation, and preservation of property; accountability for personnel; the deployment of a dedicated rapid intervention crew (RIC); and provision for support activities for those situations that are beyond the capability of the initial attack.

Iowa Code 132.8 requires a service program seeking ambulance authorization to apply for authorization at the level requested and states the department shall, "maintain an adequate number of ambulances and personnel to provide 24-hour-per-day, 7-day-per-week coverages." The section continues to state the number of ambulances and personnel to be maintained shall be determined by the department, and shall be based

upon, but not limited to the number of calls for service, service area and population, and availability of other services in the area. Furthermore, the Code requires a minimum of one currently certified EMT-B or EMT and one currently licensed driver trained in CPR. Subsection “g” of the Code requires a service program seeking

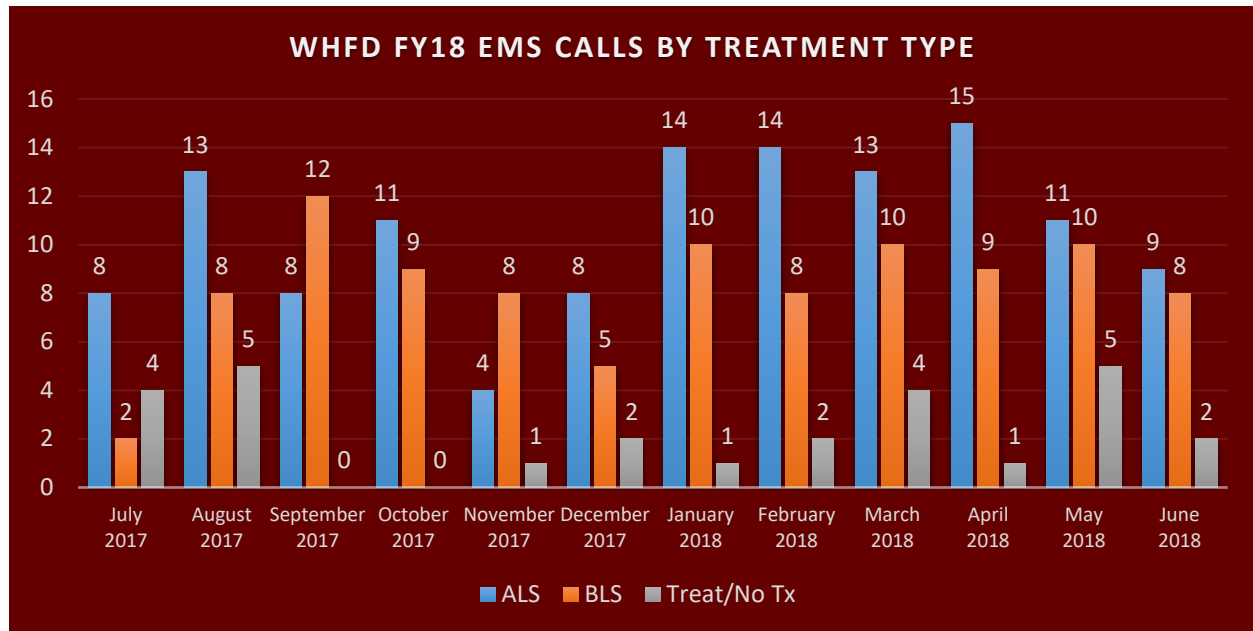
ambulance authorization shall, “only advertise or otherwise imply or hold itself out to the public as an authorized ambulance service only to the level of care maintained 24 hours per day, seven days a week.”



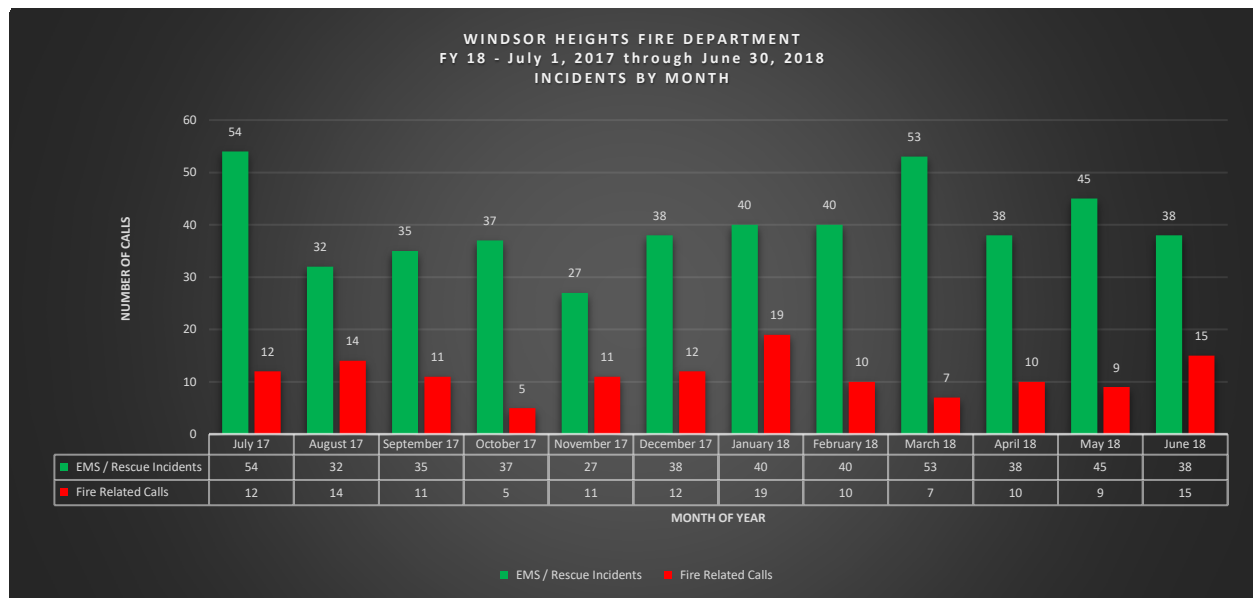
During the FY18 year, the Windsor Heights Fire Department responded to a total of 612 calls for service. Seventy-eight percent of all calls for service were EMS/Rescue related incidents, while twenty-two percent of calls for service were fire related calls. Fifty-percent of the EMS calls the Windsor Heights Fire Department responded to required Advanced Life Support measures and/or medication, while thirty-nine percent of the calls only required Basic Life Support measures. The remaining eleven-percent of calls were “treat and no transport” calls where the Fire Department conducted assessments or assisted residents but the patient was not transported to a medical care facility.

Delivery of excellent patient care is a goal of the Windsor Heights Fire Department, but also important to note are the stiff regulations on EMS/Ambulance operations. As noted by Citygate, “Unlike other aspects of firefighting, EMS care is heavily regulated and burdened with mandated oversight requirements. All of these requirements, while medically necessary, add to the [City’s] overhead cost to provide EMS. The [City] has no choice but to follow laws and regulations related to training, clinical oversight, data for tracking trends in care and paramedic skills, shelf-life of medical supplies, biomedical equipment certification, controlled drug tracking, etc.”^{iv}

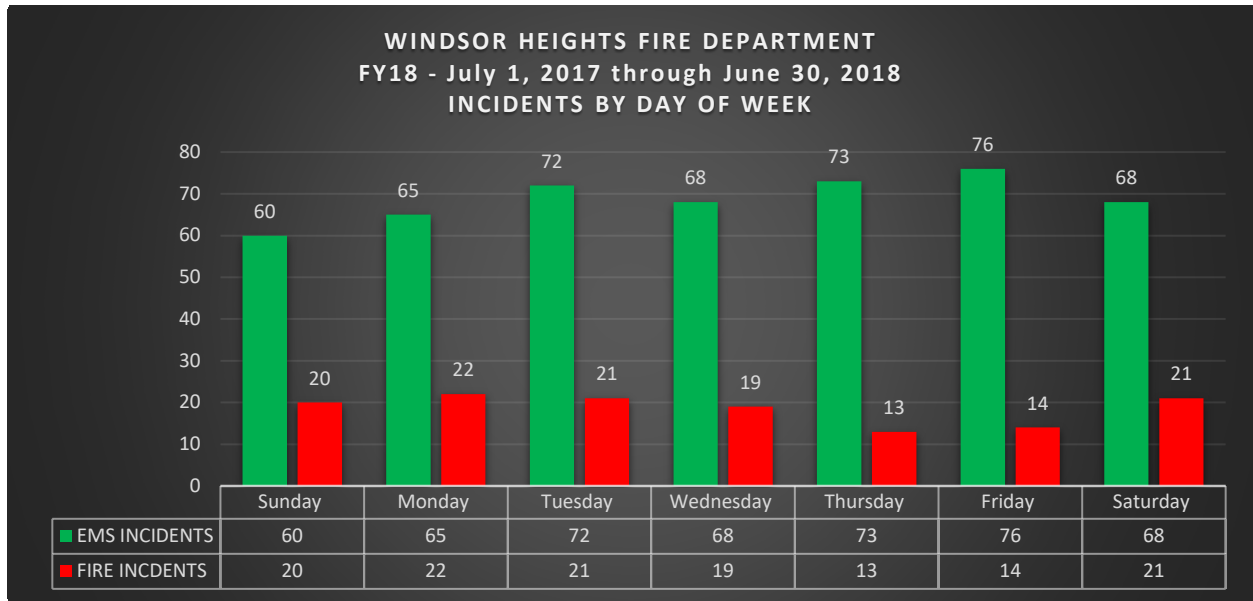
Throughout FY18, of the 254 billable Ambulance responses, 50.39% of those billable responses required Advanced Life Support (ALS) measures, 38.98% required only Basic Life Support (BLS) measures, and 10.63% were billed as treatment provided / no transport. In addition to the billable Ambulance responses, 171 responses were not billable and included responses such as motor-vehicle accidents with no patients, lift assist calls, and other no-patient responses.



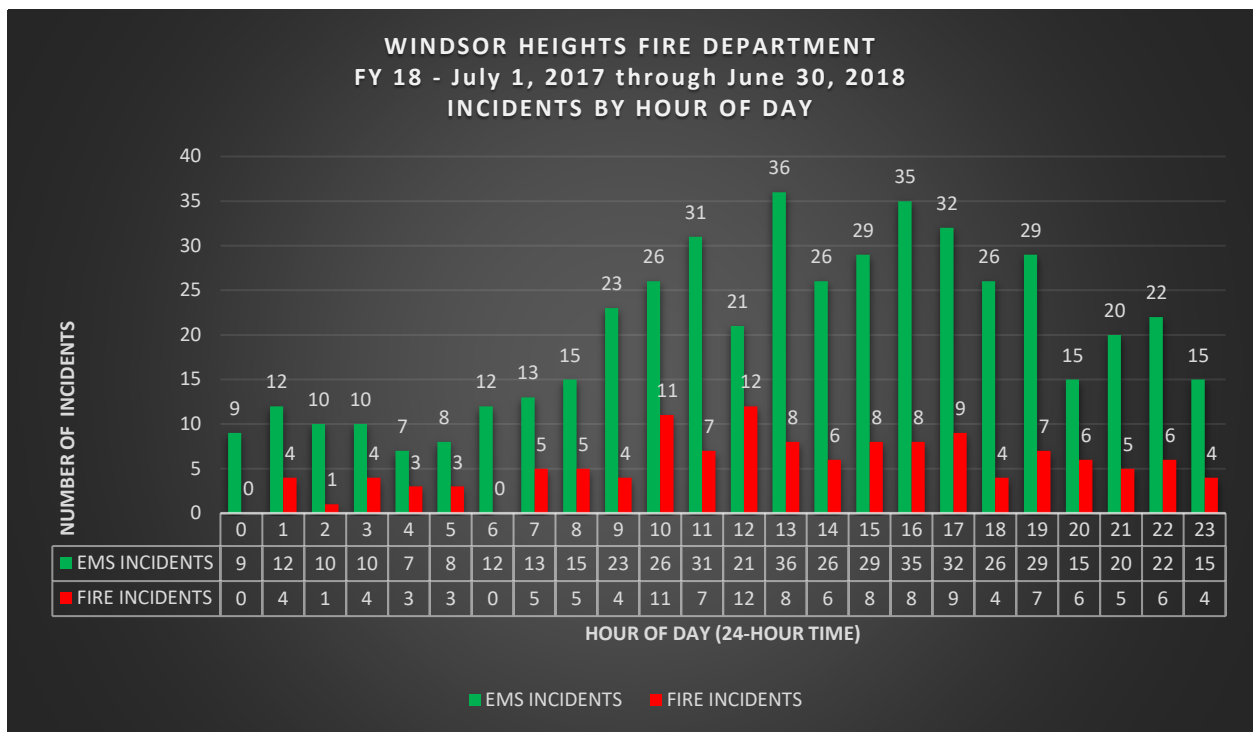
WHFD AMBULANCE SERVICE LEVEL COMPARISON



WHFD INCIDENTS BY MONTH – FY 18



WHFD INCIDENTS BY DAY OF WEEK – FY 18



WHFD INCIDENTS BY HOUR OF DAY – FY 18

A question with the Fire Service arises surrounding what the maximum utilization percentage of a firefighting unit should be. Various industry studies, including the *Carpinteria-Summerland Fire Protection District* study completed by Citygate Associates in July of 2016, discuss utilization percentages.

“During the 9-hour daytime work period, when crews on a 24-hour shift need to also pay attention to apparatus checkout, station duties, training, public education, and paperwork, plus required physical training and meal breaks, [Citygate] believes the maximum commitment UHU (Unit-Hour Utilization) per hour should not exceed 30%. Beyond that, the most important element to suffer will be training hours^v.”

In May of 2016, Fire Engineering Magazine published an article discussing UHU analysis. “The one common denominator throughout much of the research is the term “utilization.” Unit Hour Utilization (UHU) is a general term you may know. Unfortunately, it is used to refer to many methods for analysis. UHU, in its proper form, is not appropriate for our industry’s decision makers when considering average call lengths and per-hour call rates. Since we don’t respond to average calls and are probably not attempting to break hourly records, UHU is not the answer. To distance ourselves from averages, numbers of incidents, transport-only analysis, and private industry profit goals, we needed something easy and effective.^{vi}”

Furthermore, the Fire Engineering article suggests, “The basic answer is found in unit commitment, somewhat similar to utilization. We can determine how busy we are by analyzing our unit utilization through querying our total commitment. We simply divide the total seconds (yes, we’re counting seconds here) a unit is assigned to all calls by all the seconds in a year. With some easy math, the “commitment factor” is revealed.”

Fire Engineering cited a study involving Henrico, Virginia’s fire department and analyzed direct community impact of the commitment study based on travel time data and identified where and when are benchmarks consistently missed when compared to commitment factors. The benchmarks noted below were identified:

- 0.16 – 0.24 – “Ideal Commitment Range”
- 0.25 “Indicates System Stress”
- 0.26 – 0.29 – “Evaluation Range resulting in delayed incident responses”
- 0.30 “Line in the sand : not sustainable : commitment threshold when community see’s less than a 70% chance of timely emergency service and immediate relief is vital.

The benchmarks noted by the Fire Engineering article match the Citygate opinion that maximum commitment should not exceed 30%.

In calculating the commitment for the Windsor Heights Police Department, actual times spent on calls for service are only available after December 27, 2017 when the reporting software used transitioned to ImageTrend. Software used prior to ImageTrend has no reporting support without renewal of a subscription.

Throughout the first six months of 2018 (January 1 through June 30, 2018), the Windsor Heights Fire Department responded to a total of 306 calls for service. Total time spent on calls during this time frame was 247 hours, 41 minutes, and 19 seconds. Using the commitment calculation resources were committed for 14,850 minutes, or an average of 53.04 minutes per call. This puts the commitment at 5.6507%. If these numbers are used to estimate annual commitment, the annual unit hour commitment becomes 6.18%. These commitment times are well below the 25% metric indicating system stress.

Average various response metrics from Fire Department data from December 27, 2017 through June 30, 2018 are listed below. Prior to December 27, 2017, the Fire Department was utilizing a different software vendor (Firehouse) and that software does not have a report displaying similar data. Attempts to extract the data from the company would require a service contract renewal, thus the data below being reported only for the December 27, 2017 through June 30, 2018 timeframe. All data below is reported in minutes.

Average Time Notified to Enroute	Average Time Enroute to Arrived	Average Time Arrived to Left Scene	Average Time Left Scene to Destination	Average Time Unit Arrived to Back in Service
1.63 min	3.03 min	16.51 min	11.57 min	25.08 min

The NFPA Standard 1710 recommends a 4-minute or less travel time, 90% of the time, goal in urban and suburban areas. Currently, the Windsor Heights Fire Department average is 3.03 minutes, well within the NFPA standard.

In addition to maintenance of the station and equipment, fire prevention activities, training, and responding to calls for service, the Windsor Heights Fire Department is responsible for annual inspections on all rental properties throughout the City and they conduct commercial property fire inspections. These rental inspections are performed with a focus on life safety issues and are designed as another means to keep residents safe. While conducting the rental inspections, WHFD personnel also note any other City Code violations, including nuisances, and the WHFD team then works with the Planning and Zoning Official to ensure those items are resolved. During the FY18 timeframe, the WHFD team conducted a total of 160 rental inspections.

Each rental inspection requires approximately 30 minutes, which adds an additional 2400 minutes to the time resources are committed to a task. With the addition of the rental inspection duties, Fire Department unit hour commitment rise to 7.17%.

A total of 264 commercial facility inspections were conducted during FY18 by the WHFD team. These inspections are often required by law and the insurance companies providing insurance to the property. The inspections ensure life safety items, such as smoke alarms, fire sprinkler systems, egress and exits and other considerations, are sufficient and functioning properly. The WHFD team also performs monthly inspections on all City owned facilities to ensure fire extinguishers are charged and ready in case of a fire.

Commercial fire inspections average 45-minutes per inspection. Similar to rental inspections, commercial fire inspections add a total of 5940 minutes resources are committed to a task. With commercial and rental inspections, unit commitment climbs to 9.64%, still well under the 16% to 24% ideal commitment range cited by Fire Engineering.

Commercial plan review is the final piece of the fire inspection process. Commercial plan reviews take place when a business is building, remodeling, or renovating space and commercial plan reviews ensure the facilities meet Fire Codes adopted by the City. These reviews include occupancy ratings, detailing how many people can safely fit in a space, as well as ensuring proper equipment is in place (such as smoke alarms, fire sprinklers) in case of a fire.

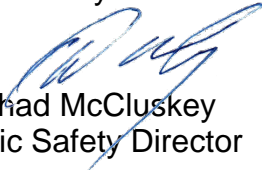
Training of Windsor Heights Fire Department personnel is primarily handled in-house, at a considerable cost savings to the City. All new personnel, who are not already certified, attend basic training that prepares them to test for Firefighter I and Firefighter II level certifications. The WHFD training programs is one of the best in the metro area and other agencies regularly comment on the abilities of our personnel. Training includes medical/EMS training, classroom training, operations training, and we are fortunate enough to be involved in a partnership affording our personnel live fire training opportunities that many agencies do not the ability to facilitate on a regular basis. Training is typically scheduled for each Wednesday, and basic / new hire academies are scheduled as needed. All fire personnel are trained in First Aid/CPR/AED, Hazardous Materials Operational Level Responder, Blood Borne Pathogens, Firefighter I and Firefighter II at a minimum.

RECOMMENDATIONS – FIRE DEPARTMENT:

1. In order to continue to provide emergency medical care to the community, as noted several times throughout this report, Windsor Heights must staff a minimum of 2 people per shift, with at least one of those being a Paramedic level trained member. While fire calls do not support staffing of 6 full-time employees, no less than 2 per shift is required in order to ensure EMS coverage to the citizens. It is therefore recommended that the third Paramedic full-time position be reinstated and this position has been planned in the Public Safety Director's FY20 budget proposal.
2. A reduction in part-time hours could serve to fund part of the full-time Paramedic position, however part-time hours are still necessary to ensure coverage for sick leave, vacation, training, and other times when one member of the 2-man crew is absent from duty. The FY20 budget plans for a reduction in part-time coverage from 12-hours each day of the year, to 8-hours each day of the year – reducing the part-time staffing by 33%. The 8-hour part-time shifts will be scheduled to cover during the times of greater call volume.

3. The Fire Department needs to be staffed with a first line supervisor/manager. This position cannot operate effectively on a 24/48 schedule as 2 of the 3 shifts operate without frontline supervision. The Fire Department needs to have one supervisor who works business hours and is responsible for the day-to-day operations of the department and management of Fire Department personnel. The Public Safety Director is currently the only supervisor for the Fire Department. The recommendation is this person be the rank of Captain and operate as a Deputy Fire Chief, second in command to the Public Safety Director. This position needs to be considered in the short-term strategic planning for the City.
4. Analysis needs to be completed on the current Fire Department training methodology and scheduling. Many members have noted training each and every Wednesday night takes a toll on members who already must balance their time between work and home life. Identifying efficiencies in the training schedule could help alleviate some of the burden put on members, while maintaining the high training standards we currently enjoy. This analysis is currently in progress.
5. Finally, a daily schedule of duties needs to be implemented to ensure structure among each shift in the Fire Department and to ensure sharing of duties, such as rental inspections, commercial inspections and vehicle maintenance. As demonstrated above in the numbers of inspections being completed, it is important for all members to be properly trained and for these duties to be schedule across shifts to ensure a balanced workload. A daily schedule would also allow much needed structure to the workday of the Fire Department personnel. This recommendation is also already in progress.

Respectfully Submitted,


E. Chad McCluskey
Public Safety Director

ⁱ Citygate Associates, LLC *Comprehensive Services Delivery and Staffing Review*, City of Eloy, Arizona, November 22, 2016, p59.

ⁱⁱ ICMA Center for Public Safety Management, *Walterboro, South Carolina Public Safety Department Analysis*, July, 2013, p58-59

ⁱⁱⁱ City of Nixa, Missouri, *2015 Staffing Study*, p2-4

^{iv} Citygate Associates, LLC *Standards of Response Cover and Headquarters Staffing Adequacy Study*, Carpinteria-Summerland Fire Protection District, California, July 27, 2016, p66

^v Citygate Associates, LLC *Standards of Response Cover and Headquarters Staffing Adequacy Study*, Carpinteria-Summerland Fire Protection District, California, July 27, 2016, p43

^{vi} Fire Engineering Magazine, *How Busy is Busy*, May 1, 2016, <https://www.fireengineering.com/articles/print/volume-169/issue-5/departments/fireems/how-busy-is-busy.html>