CENTER FOR PUBLIC SAFETY MANAGEMENT, LLC

# POLICE DATA ANALYSIS REPORT

## Rockville, Maryland

***DRAFT***


CPSM®

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Thomas Wieczorek is the Director of the Center for Public Safety Management. Leonard Matarese serves as the Director of Research & Program Development. Dr. Dov Chelst is the Director of Quantitative Analysis.

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# CONTENTS

# TABLES

# FIGURES

# INTRODUCTION

This is the preliminary data analysis report on police patrol operations for the Rockville, Maryland, Police Department, which was conducted by the Center for Public Safety Management, LLC (CPSM). This analysis focuses on three main areas: workload, deployment, and response times. These three areas are related almost exclusively to patrol operations, which constitute a significant portion of the police department's personnel and financial commitment.

All information in this preliminary report was developed using the data provided by the Montgomery County Emergency Communications Center's computer-aided dispatch (CAD) system. The purposes of this report are to provide the City of Rockville with CPSM's preliminary findings and to allow the police department to review and bring to our attention any dispatch information that may be inconsistent with other internal records of the agency.

CPSM collected data for a one-year period of January 1, 2017 through December 31, 2017. The majority of the first section of the report, concluding with Table 8, uses call data for the one-year period. For the detailed workload analysis, we use two eight-week sample periods. The first period is from January 4 through February 28, 2017, or winter, and the second period is from July 7 through August 31, 2017, or summer. It is worth noting that the communications center switched CAD systems in April 2017. It is possible that some trends indicating a change in behavior before and after April may reflect the new method of record keeping rather than a modified patrol practice.

# WORKLOAD ANALYSIS

When CPSM analyzes a set of dispatch records, we go through a series of steps:

1. We first process the data to improve accuracy. For example, we remove duplicate patrol units recorded on a single event as well as records that do not indicate an actual activity. We also remove incomplete data, as found in situations where there is not enough time information to evaluate the record.
2. At this point, we have a series of records that we call "events." We identify these events in three ways:
    - We distinguish between patrol and nonpatrol units.
    - We assign a category to each event based upon its description.
    - We indicate whether the call is "zero time on scene" (i.e., a patrol unit spent less than 30 seconds on scene), "police-initiated," or "community-initiated."
3. We then remove all records that do not involve a patrol unit to get a total number of patrol-related events.
4. At important points during our analysis, we focus on a smaller group of events designed to represent actual calls for service. This excludes events with no officer time spent on scene and directed patrol activities.

In this way, we first identify a total number of records, then limit ourselves to patrol events, and finally focus on calls for service.

As with similar cases around the country, we encountered a number of issues when analyzing Rockville's dispatch data. We made assumptions and decisions to address these issues.

- 548 events (about 2.2 percent) involved patrol units spending zero time on scene.
- Four calls lacked accurate busy times. We excluded these calls when evaluating busy times and work hours.
- The computer-aided dispatch (CAD) system used approximately 240 event descriptions, which we condensed to 14 categories for our tables and 11 categories for our figures (shown in Chart 1). Table 20 in the appendix shows how each call description was categorized.

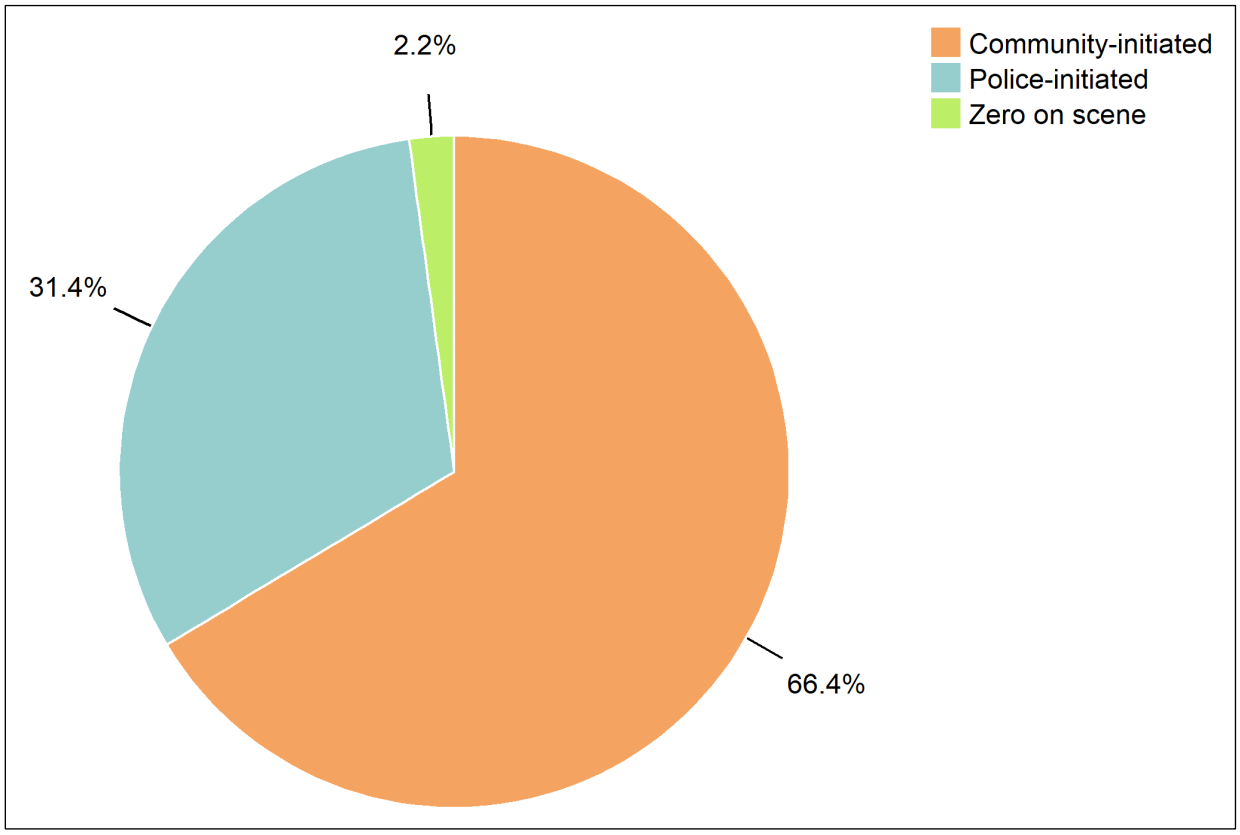
Between January 1, 2017 and December 31, 2017, the communications center recorded approximately 25,360 events that were assigned call numbers, and which included an adequate record of a responding patrol unit as either the primary or secondary unit. When measured daily, the department reported an average of 69.5 patrol-related events per day, approximately 2.2 percent of which (1.5 per day) had fewer than 30 seconds spent on the call.

In the following pages, we show two types of data: activity and workload. The activity levels are measured by the average number of calls per day, broken down by the type and origin of the calls, and categorized by the nature of the calls (crime, traffic, etc.). Workload is measured in average work hours per day.

## CHART 1: Event Descriptions for Tables and Figures

| Figure Category | Table Category |
|---|---|
| Accident | Accident |
| Alarm | Alarm |
| Assist other agency | Assist other agency |
| Check | Check |
| Crime | Crime–property |
| | Crime–person |
| Directed patrol | Directed patrol |
| Disturbance | Disturbance |
| General noncriminal | Miscellaneous |
| | Administrative |
| | Animal |
| Investigation | Investigation |
| Suspicious incident | Suspicious incident |
| Traffic | Traffic enforcement |

## FIGURE 1: Percentage Events per Day, by Initiator




**Note:** Percentages are based on a total of 25,360 events.

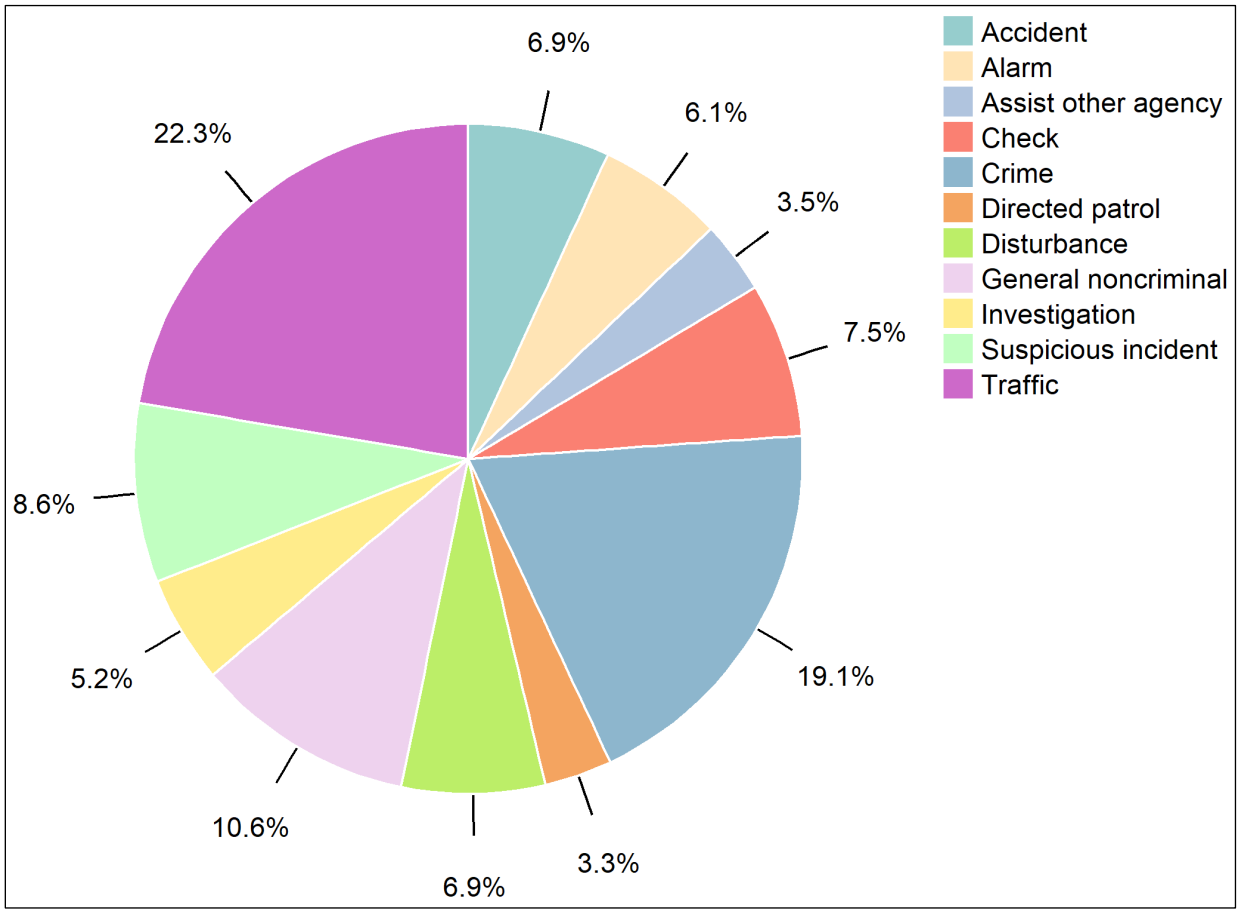
## TABLE 1: Events per Day, by Initiator

| Initiator | No. of Events | Events per Day |
|---|---|---|
| Community-initiated | 16,841 | 46.1 |
| Police-initiated | 7,971 | 21.8 |
| Zero on scene | 548 | 1.5 |
| **Total** | **25,360** | **69.5** |

## Observations:

- 66 percent of all events were community-initiated.
- 31 percent of all events were police-initiated.
- 2 percent of the events had zero time on scene.
- On average, there were 69 events per day, or 2.9 per hour.

## FIGURE 2: Percentage Events per Day, by Category




**Note:** The figure combines categories in the following table according to the description in Chart 1.

### TABLE 2: Events per Day, by Category

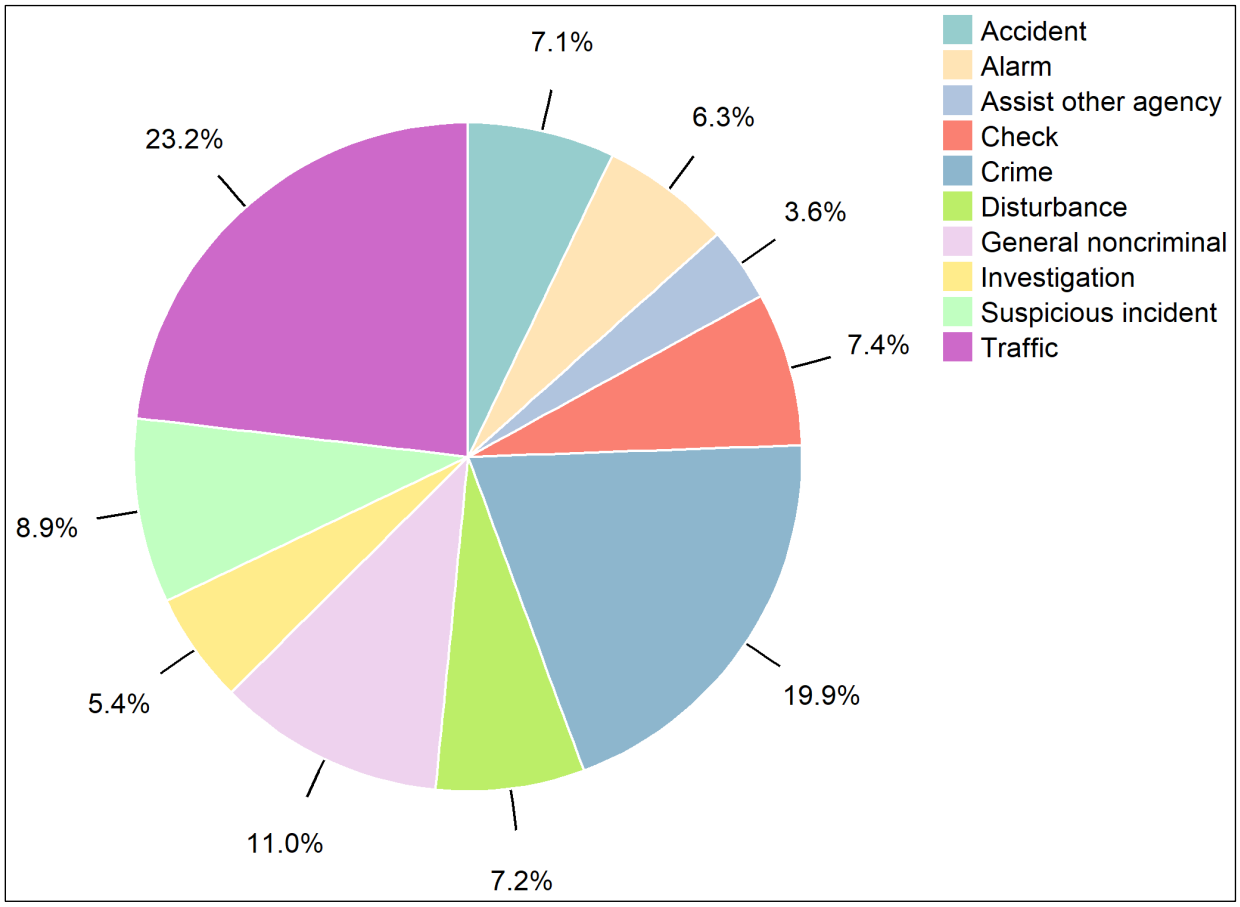
| Category | No. of Calls | Calls per Day |
|---|---|---|
| Accident | 1,739 | 4.8 |
| Administrative | 350 | 1.0 |
| Alarm | 1,545 | 4.2 |
| Animal | 231 | 0.6 |
| Assist other agency | 886 | 2.4 |
| Check | 1,890 | 5.2 |
| Crime–person | 1,823 | 5.0 |
| Crime–property | 3,025 | 8.3 |
| Directed patrol | 832 | 2.3 |
| Disturbance | 1,758 | 4.8 |
| Investigation | 1,315 | 3.6 |
| Miscellaneous | 2,112 | 5.8 |
| Suspicious incident | 2,192 | 6.0 |
| Traffic enforcement | 5,662 | 15.5 |
| **Total** | **25,360** | **69.5** |

**Note:** Observations below refer to events shown within the figure rather than the table.

## Observations:

- The top four categories accounted for 61 percent of events:
  - 22 percent of events were traffic-related.
  - 19 percent of events were crimes.
  - 11 percent of events were general noncriminal.
  - 9 percent of events were suspicious incidents.

## FIGURE 3: Percentage Calls per Day, by Category




**Note:** The figure combines categories in the following table according to the description in Chart 1.

### TABLE 3: Calls per Day, by Category

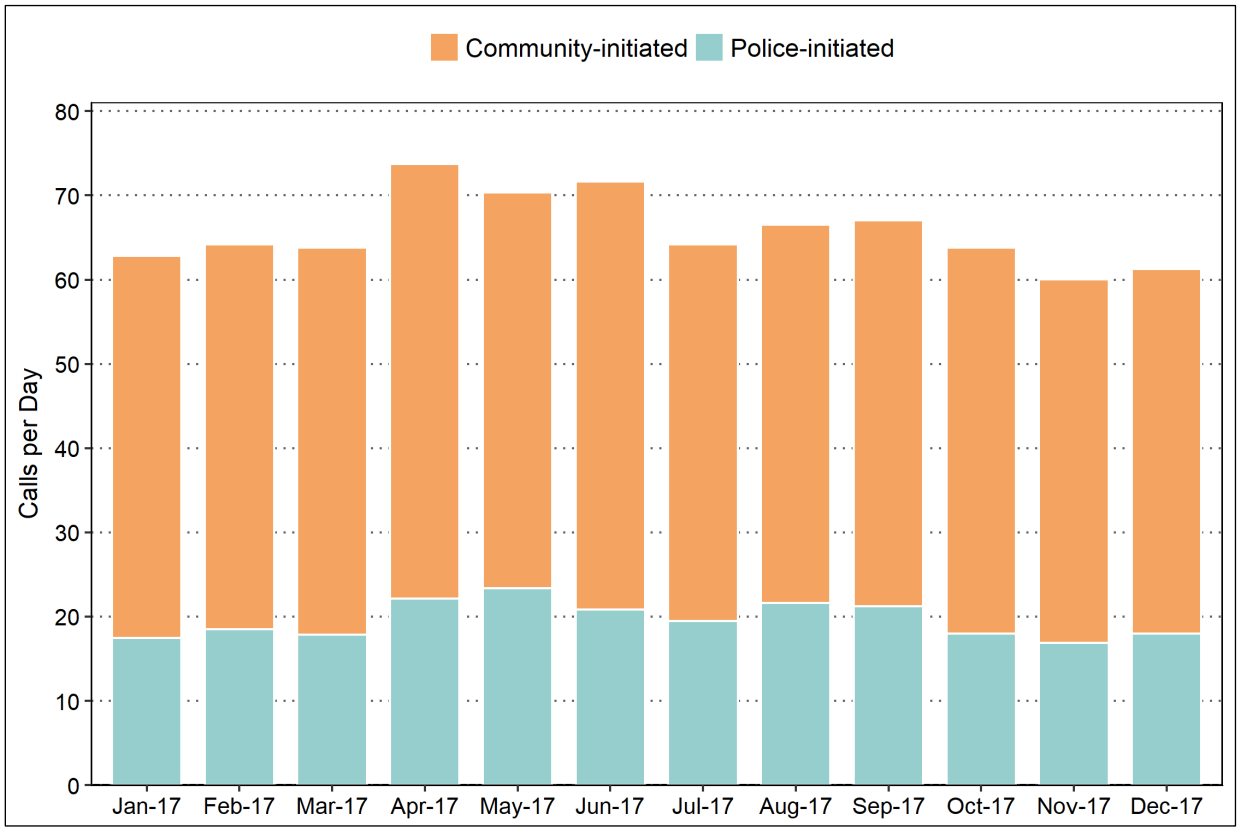
| Category | No. of Calls | Calls per Day |
|---|---|---|
| Accident | 1,706 | 4.7 |
| Administrative | 346 | 0.9 |
| Alarm | 1,511 | 4.1 |
| Animal | 221 | 0.6 |
| Assist other agency | 864 | 2.4 |
| Check | 1,786 | 4.9 |
| Crime–person | 1,797 | 4.9 |
| Crime–property | 2,986 | 8.2 |
| Disturbance | 1,727 | 4.7 |
| Investigation | 1,289 | 3.5 |
| Miscellaneous | 2,069 | 5.7 |
| Suspicious incident | 2,145 | 5.9 |
| Traffic enforcement | 5,557 | 15.2 |
| **Total** | **24,004** | **65.8** |

**Note:** The focus here is on recorded calls rather than recorded events. We removed directed patrol events and events with zero time on scene.

## Observations:

- On average, there were 65.8 calls per day, or 2.7 per hour.
- The top four categories accounted for 63 percent of calls:
  - 23 percent of calls were traffic-related.
  - 20 percent of calls were crimes.
  - 11 percent of calls were general noncriminal.
  - 9 percent of calls were suspicious incidents.

## FIGURE 4: Calls per Day, by Initiator and Month



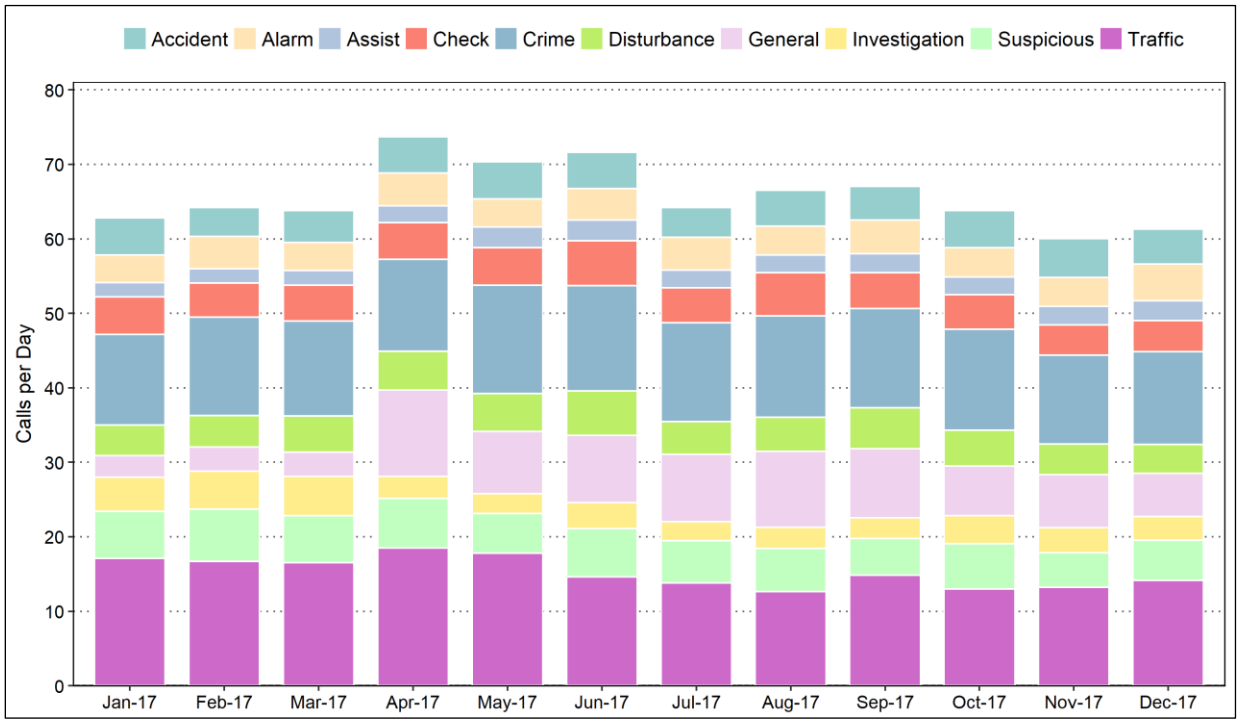

## TABLE 4: Calls per Day, by Initiator and Month

| Initiator | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Community | 45.3 | 45.7 | 45.9 | 51.6 | 46.9 | 50.8 | 44.7 | 44.9 | 45.8 | 45.8 | 43.1 | 43.3 |
| Police | 17.5 | 18.5 | 17.9 | 22.1 | 23.4 | 20.9 | 19.5 | 21.6 | 21.2 | 18.0 | 16.9 | 18.0 |
| **Total** | **62.8** | **64.2** | **63.8** | **73.7** | **70.3** | **71.6** | **64.2** | **66.5** | **67.0** | **63.8** | **60.0** | **61.3** |

## Observations:

- The number of calls per day was lowest in November.
- The number of calls per day was highest in April.
- The month with the most calls had 23 percent more calls than the month with the fewest calls.
- May had the most police-initiated calls, with 38 percent more than the period of November, which had the fewest.
- April had the most other-initiated calls, with 20 percent more than the period of November, which had the fewest.

## FIGURE 5: Calls per Day, by Category and Month




**Note:** The figure combines categories in the following table according to the description in Chart 1.

## TABLE 5: Calls per Day, by Category and Month

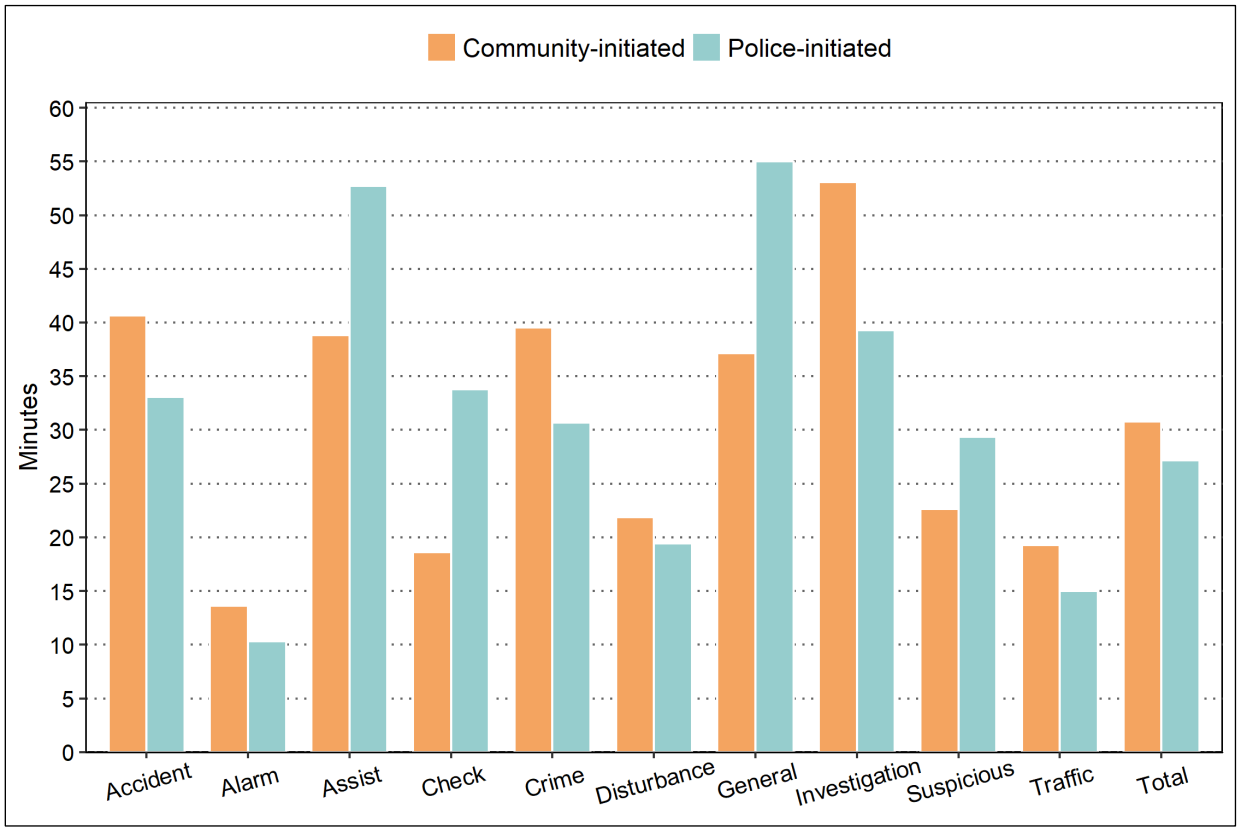
| Category | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Accident | 5.0 | 3.9 | 4.3 | 4.8 | 5.0 | 4.9 | 4.0 | 4.8 | 4.5 | 5.0 | 5.2 | 4.7 |
| Administrative | 0.0 | 0.2 | 0.1 | 0.9 | 1.1 | 1.7 | 1.3 | 1.7 | 1.4 | 1.0 | 1.1 | 0.9 |
| Alarm | 3.7 | 4.3 | 3.7 | 4.4 | 3.7 | 4.2 | 4.4 | 3.9 | 4.5 | 3.9 | 3.9 | 4.9 |
| Animal | 0.5 | 0.6 | 0.5 | 0.9 | 0.6 | 1.0 | 0.5 | 0.5 | 0.8 | 0.4 | 0.6 | 0.4 |
| Assist other agency | 1.9 | 1.9 | 2.0 | 2.3 | 2.8 | 2.7 | 2.4 | 2.4 | 2.5 | 2.4 | 2.5 | 2.7 |
| Check | 5.0 | 4.6 | 4.8 | 4.9 | 5.1 | 6.0 | 4.7 | 5.8 | 4.8 | 4.6 | 4.1 | 4.2 |
| Crime–person | 5.3 | 5.0 | 4.3 | 4.6 | 5.4 | 4.5 | 5.1 | 5.2 | 5.5 | 4.8 | 5.0 | 4.5 |
| Crime–property | 6.9 | 8.2 | 8.5 | 7.7 | 9.1 | 9.7 | 8.2 | 8.4 | 7.8 | 8.7 | 6.9 | 8.0 |
| Disturbance | 4.1 | 4.2 | 4.9 | 5.2 | 5.1 | 6.0 | 4.4 | 4.6 | 5.5 | 4.8 | 4.1 | 3.9 |
| Investigation | 4.5 | 5.1 | 5.3 | 3.0 | 2.6 | 3.5 | 2.5 | 2.8 | 2.8 | 3.7 | 3.4 | 3.2 |
| Miscellaneous | 2.4 | 2.4 | 2.6 | 9.7 | 6.7 | 6.3 | 7.3 | 8.0 | 7.2 | 5.3 | 5.5 | 4.5 |
| Suspicious incident | 6.3 | 7.0 | 6.3 | 6.7 | 5.4 | 6.5 | 5.7 | 5.8 | 4.9 | 6.1 | 4.6 | 5.4 |
| Traffic enforcement | 17.1 | 16.7 | 16.5 | 18.5 | 17.8 | 14.6 | 13.8 | 12.6 | 14.9 | 13.0 | 13.2 | 14.2 |
| **Total** | **62.8** | **64.2** | **63.8** | **73.7** | **70.3** | **71.6** | **64.2** | **66.5** | **67.0** | **63.8** | **60.0** | **61.3** |

**Note:** Calculations were limited to calls rather than events.

## Observations:

- The top four categories averaged between 61 and 67 percent of calls throughout the year:
  - Traffic calls averaged between 12.6 and 18.5 calls per day throughout the year.
  - Crimes averaged between 11.9 and 14.5 calls per day throughout the year.
  - General noncriminal calls averaged between 2.9 and 11.6 calls per day throughout the year.
  - Suspicious incidents averaged between 4.6 and 7.0 calls per day throughout the year.
- Crimes accounted for 17 to 21 percent of total calls per day throughout the year.

## FIGURE 6: Primary Unit's Average Occupied Times, by Category and Initiator




**Note:** The figure combines categories using weighted averages from the following table according to the description in Chart 1. For this graph and the following Table 6, we removed four calls with inaccurate busy times.

## TABLE 6: Primary Unit's Average Occupied Times, by Category and Initiator

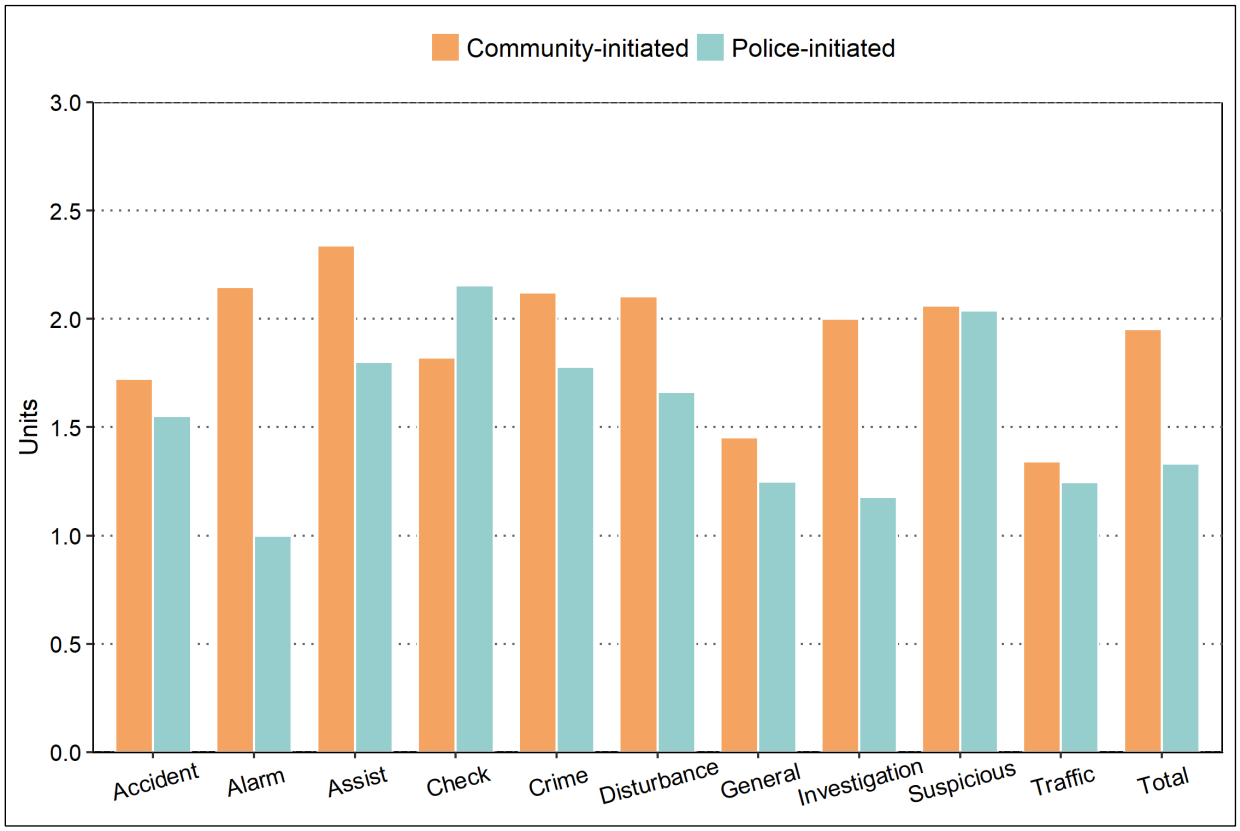
| Category | Community-Initiated | | Police-Initiated | |
|---|---|---|---|---|
| | Minutes | Calls | Minutes | Calls |
| Accident | 40.7 | 1,510 | 33.1 | 196 |
| Administrative | NA | 0 | 44.6 | 346 |
| Alarm | 13.6 | 1,509 | 10.3 | 2 |
| Animal | 24.8 | 183 | 23.5 | 38 |
| Assist other agency | 38.8 | 834 | 52.7 | 30 |
| Check | 18.6 | 1,598 | 33.8 | 188 |
| Crime–person | 36.9 | 1,769 | 47.4 | 28 |
| Crime–property | 41.2 | 2,847 | 27.3 | 139 |
| Disturbance | 21.9 | 1,653 | 19.4 | 74 |
| Investigation | 53.1 | 929 | 39.3 | 360 |
| Miscellaneous | 39.7 | 893 | 59.1 | 1,174 |
| Suspicious incident | 22.6 | 1,801 | 29.3 | 344 |
| Traffic enforcement | 19.3 | 1,314 | 15 | 4,241 |
| **Weighted Average/Total Calls** | **30.8** | **16,840** | **27.2** | **7,160** |

**Note:** The information in Figure 6 and Table 6 is limited to calls and excludes all events that show zero time on scene. A unit's occupied time is measured as the time from when the unit was dispatched until the unit becomes available again. The times shown are the average occupied minutes per call for the primary unit, rather than the total occupied minutes for all units assigned to a call. Observations below refer to times shown within the figure rather than the table.

## Observations:

- A unit's average time spent on a call ranged from 10 to 55 minutes overall.
- The longest average times were for police-initiated general noncriminal calls.
- The average time spent on crimes was 40 minutes for other-initiated calls and 31 minutes for police-initiated calls.

## FIGURE 7: Number of Responding Units, by Initiator and Category



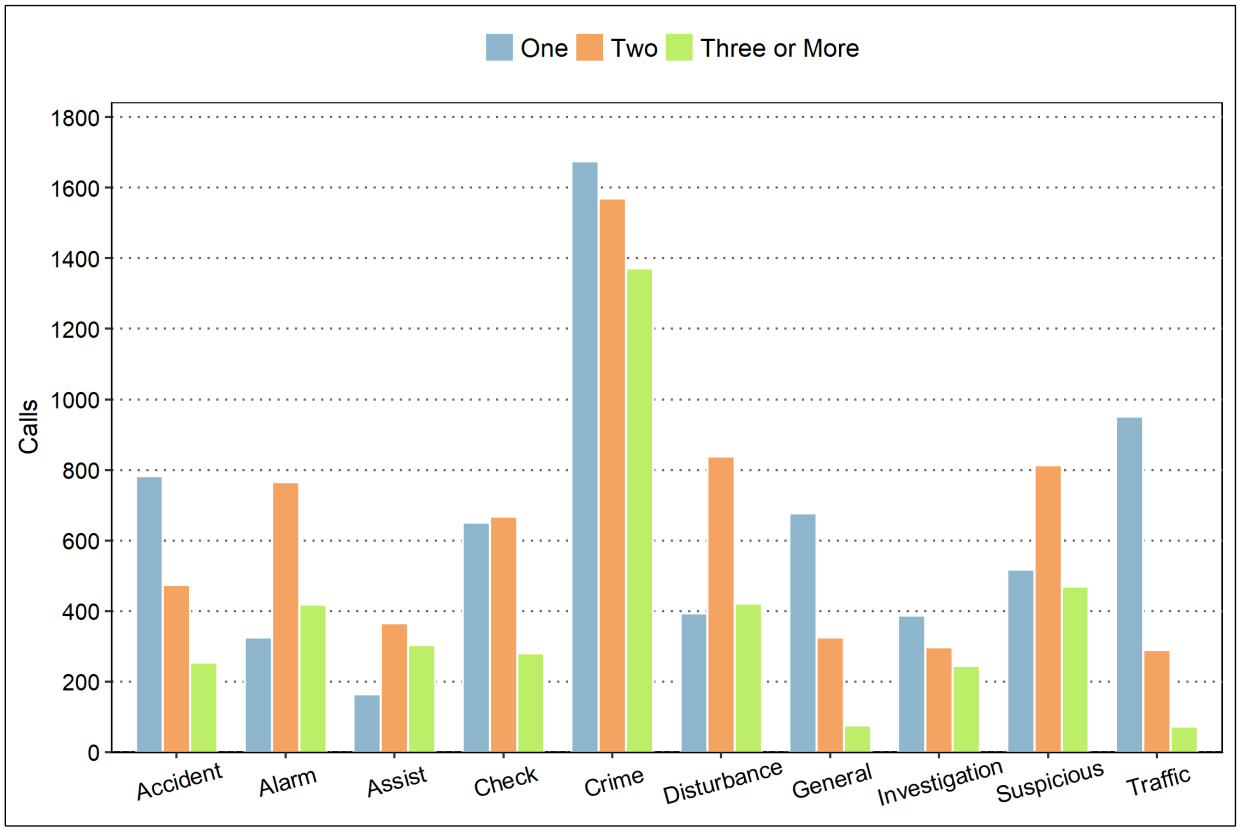

**Note:** The figure combines categories using weighted averages from the following table according to the description in Chart 1.

## TABLE 7: Average Number of Responding Units, by Initiator and Category

| Category | Community-Initiated | | Police-Initiated | |
|---|---|---|---|---|
| | No. of Units | Calls | No. of Units | Calls |
| Accident | 1.7 | 1,510 | 1.6 | 196 |
| Administrative | NA | 0 | 1.3 | 346 |
| Alarm | 2.1 | 1,509 | 1.0 | 2 |
| Animal | 1.3 | 183 | 1.1 | 38 |
| Assist other agency | 2.3 | 834 | 1.8 | 30 |
| Check | 1.8 | 1,598 | 2.2 | 188 |
| Crime–person | 2.5 | 1,769 | 2.9 | 28 |
| Crime–property | 1.9 | 2,847 | 1.5 | 139 |
| Disturbance | 2.1 | 1,653 | 1.7 | 74 |
| Investigation | 2.0 | 929 | 1.2 | 360 |
| Miscellaneous | 1.5 | 894 | 1.2 | 1,175 |
| Suspicious incident | 2.1 | 1,801 | 2.0 | 344 |
| Traffic enforcement | 1.3 | 1,314 | 1.2 | 4,243 |
| **Weighted Average/Total Calls** | **2.0** | **16,841** | **1.3** | **7,163** |

**Note:** The information in Figure 7 and Table 7 is limited to calls and excludes all events that show zero time on scene. Observations refer to the number of responding units shown within the figure rather than the table.

## FIGURE 8: Number of Responding Units, by Category, Community-initiated Calls




**Note:** The figure combines categories using weighted averages from the following table according to the description in Chart 1.

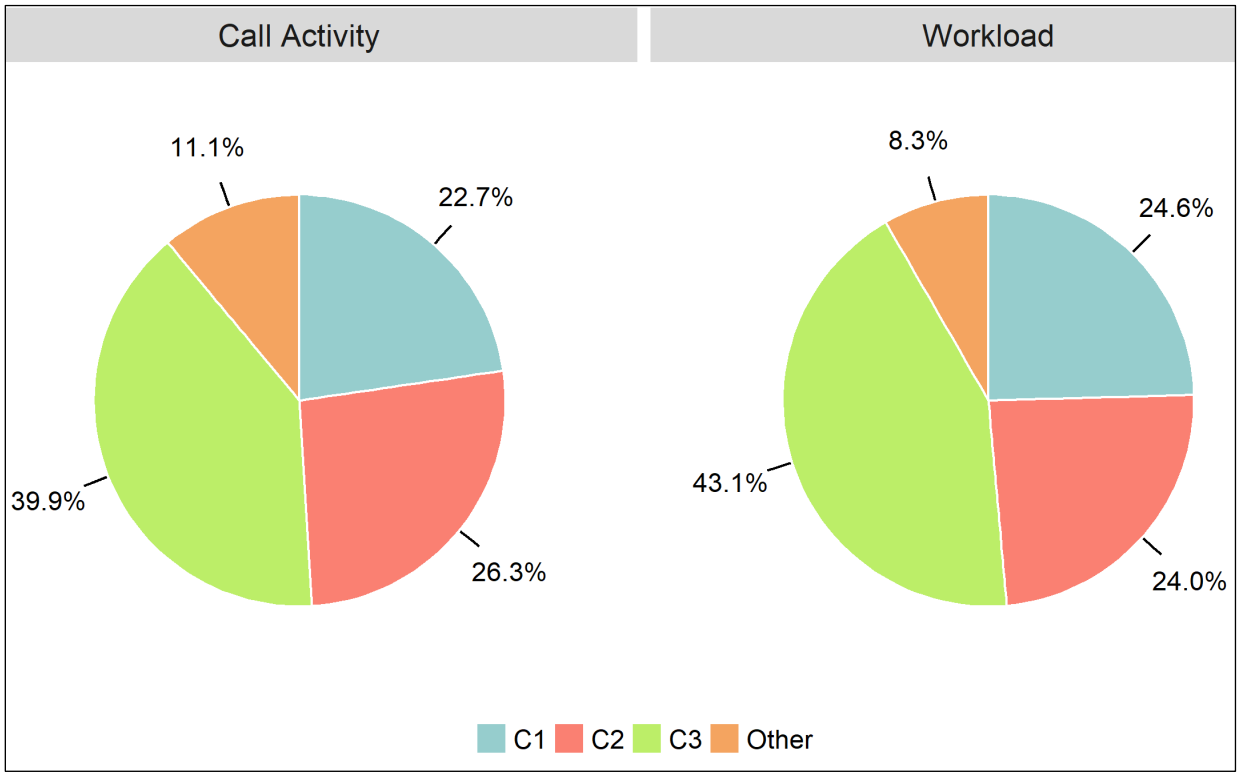
## TABLE 8: Number of Responding Units, by Category, Community-initiated Calls

| Category | Responding Units | | |
|---|---|---|---|
| | One | Two | Three or More |
| Accident | 782 | 474 | 254 |
| Alarm | 325 | 766 | 418 |
| Animal | 135 | 42 | 6 |
| Assist other agency | 164 | 366 | 304 |
| Check | 650 | 668 | 280 |
| Crime–person | 396 | 602 | 771 |
| Crime–property | 1,279 | 968 | 600 |
| Disturbance | 394 | 838 | 421 |
| Investigation | 387 | 298 | 244 |
| Miscellaneous | 542 | 283 | 69 |
| Suspicious incident | 518 | 814 | 469 |
| Traffic enforcement | 951 | 290 | 73 |
| **Total** | **6,523** | **6,409** | **3,909** |

## Observations:

- The overall mean number of responding units was 2.0 for community-initiated calls and 1.3 for police-initiated calls.
- The mean number of responding units was as high as 2.3 for agency assists that were community-initiated.
- 39 percent of community-initiated calls involved one responding unit.
- 38 percent of community-initiated calls involved two responding units.
- 23 percent of community-initiated calls involved three or more responding units.
- The largest group of calls with three or more responding units involved crimes.

## FIGURE 9: Percentage Calls and Work Hours, by Beat




**Note:** The "other" category includes 1,807 calls outside defined city beats and an additional 852 calls missing location coordinates.

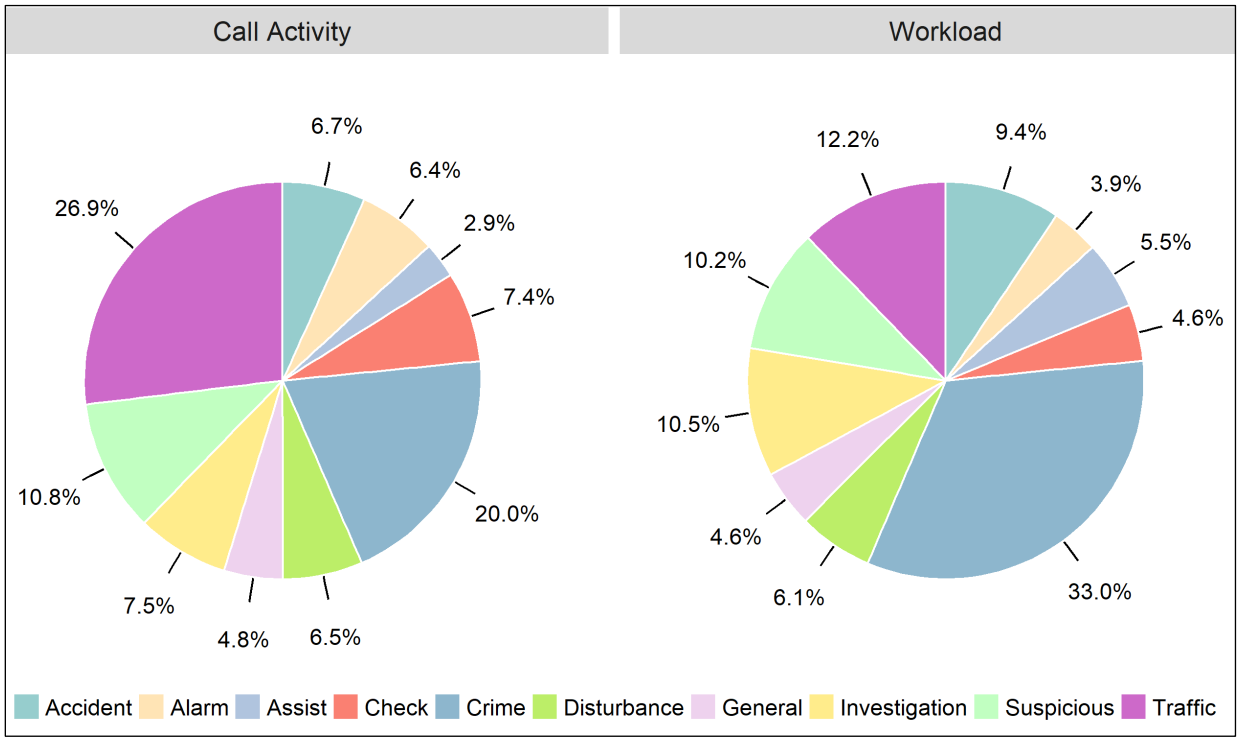
## TABLE 9: Calls and Work Hours by Beat, per Day

| Beat | Per Day | | Area (Sq. Miles) |
|---|---|---|---|
| | Calls | Work Hours | |
| C1 | 14.9 | 12.3 | 3.5 |
| C2 | 17.3 | 12.0 | 4.1 |
| C3 | 26.2 | 21.6 | 5.9 |
| Other | 7.3 | 4.2 | NA |
| **Total** | **65.8** | **50.1** | **13.6** |

## Observations:

- Beat C3 had most calls and workload. It accounted for 40 percent of total calls and 43 percent of the total workload.
- Excluding calls identified as "other," an even distribution would allot 19.5 calls and 15.3 work hours per beat.

## FIGURE 10: Percentage Calls and Work Hours, by Category, Winter 2017



## TABLE 10: Calls and Work Hours per Day, by Category, Winter 2017

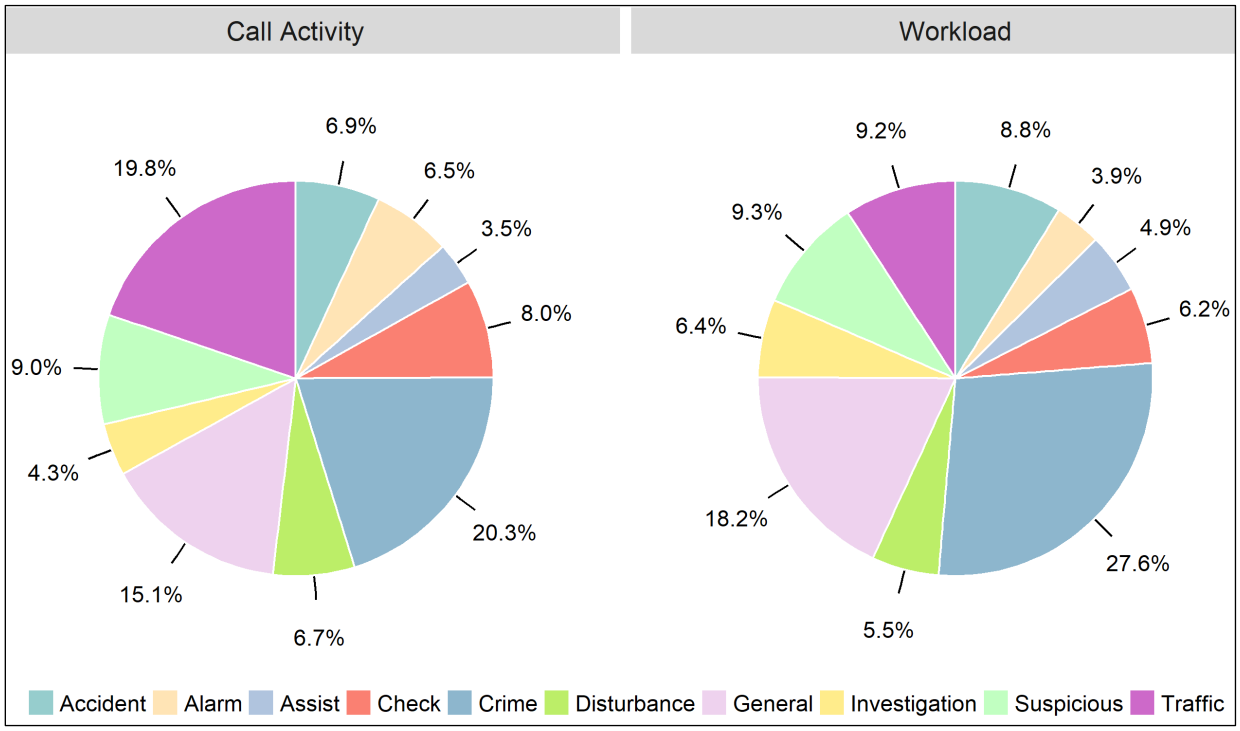
| Category | Per Day | |
|---|---|---|
| | Calls | Work Hours |
| Accident | 4.3 | 4.3 |
| Administrative | 0.1 | 0.1 |
| Alarm | 4.1 | 1.8 |
| Animal | 0.5 | 0.2 |
| Assist other agency | 1.8 | 2.5 |
| Check | 4.7 | 2.1 |
| Civil matter | 5.2 | 6.8 |
| Crime–person | 7.5 | 8.4 |
| Crime–property | 4.1 | 2.8 |
| Investigation | 4.8 | 4.8 |
| Miscellaneous | 2.4 | 1.8 |
| Suspicious incident | 6.9 | 4.7 |
| Traffic enforcement | 17.1 | 5.6 |
| **Total** | **63.5** | **45.9** |

**Note:** Workload calculations focused on calls rather than events.

## Observations, Winter:

- On average, there were 64 calls per day, or 2.7 per hour.
- Total workload averaged 46 hours per day; on average, 1.9 officers per hour were busy responding to calls.
- Traffic calls constituted 27 percent of calls and 12 percent of workload.
- Crimes constituted 20 percent of calls and 33 percent of workload.
- General noncriminal calls constituted 5 percent of calls and 5 percent of workload.
- Suspicious incidents constituted 11 percent of calls and 10 percent of workload.
- These top four categories constituted 63 percent of calls and 60 percent of workload.

## FIGURE 11: Percentage Calls and Work Hours, by Category, Summer 2017



### TABLE 11: Calls and Work Hours per Day, by Category, Summer 2017

| Category | Per Day | |
|---|---|---|
| | Calls | Work Hours |
| Accident | 4.5 | 4.6 |
| Administrative | 1.5 | 1.3 |
| Alarm | 4.2 | 2.0 |
| Animal | 0.4 | 0.2 |
| Assist other agency | 2.3 | 2.6 |
| Check | 5.2 | 3.3 |
| Crime–person | 5.0 | 6.1 |
| Crime–property | 8.2 | 8.5 |
| Disturbance | 4.3 | 2.9 |
| Investigation | 2.8 | 3.4 |
| Miscellaneous | 7.9 | 8.1 |
| Suspicious incident | 5.8 | 4.9 |
| Traffic enforcement | 12.9 | 4.8 |
| **Total** | **65.1** | **52.7** |

**Note:** Workload calculations focused on calls rather than events.

## Observations, Summer:

- The average number of calls per day was higher in summer than in winter.
- The average daily workload was higher in summer than in winter.
- On average, there were 65 calls per day, or 2.7 per hour.
- Total workload averaged 53 hours per day; on average, 2.2 officers per hour were busy responding to calls.
- Traffic calls constituted 20 percent of calls and 9 percent of workload.
- Crimes constituted 20 percent of calls and 28 percent of workload.
- General noncriminal calls constituted 15 percent of calls and 18 percent of workload.
- Suspicious incidents constituted 9 percent of calls and 9 percent of workload.
- These top four categories constituted 64 percent of calls and 64 percent of workload.

# NONCALL ACTIVITIES

In the period from January 1, 2017, through December 31, 2017, the dispatch center recorded activities that were not assigned a call number. We focused on those activities that involved a patrol unit. We also limited our analysis to noncall activities that occurred during shifts where the same patrol unit was also responding to calls for service. Each record only indicates one unit per activity. There were a few problems with the data provided and we made assumptions and decisions to address these issues:

- We excluded activities that lasted less than 30 seconds. These are irrelevant and contribute little to the overall workload.
- Another portion of the recorded activities lasted more than eight hours. As an activity is unlikely to last more than eight hours, we assumed that these records were inaccurate.
- After these exclusions, 4,524 activities remained. These activities had an average duration of 56.1 minutes.

In this section, we report noncall activities and workload by type of activity. In the next section, we include these activities in the overall workload when comparing the total workload against available personnel in summer and winter.

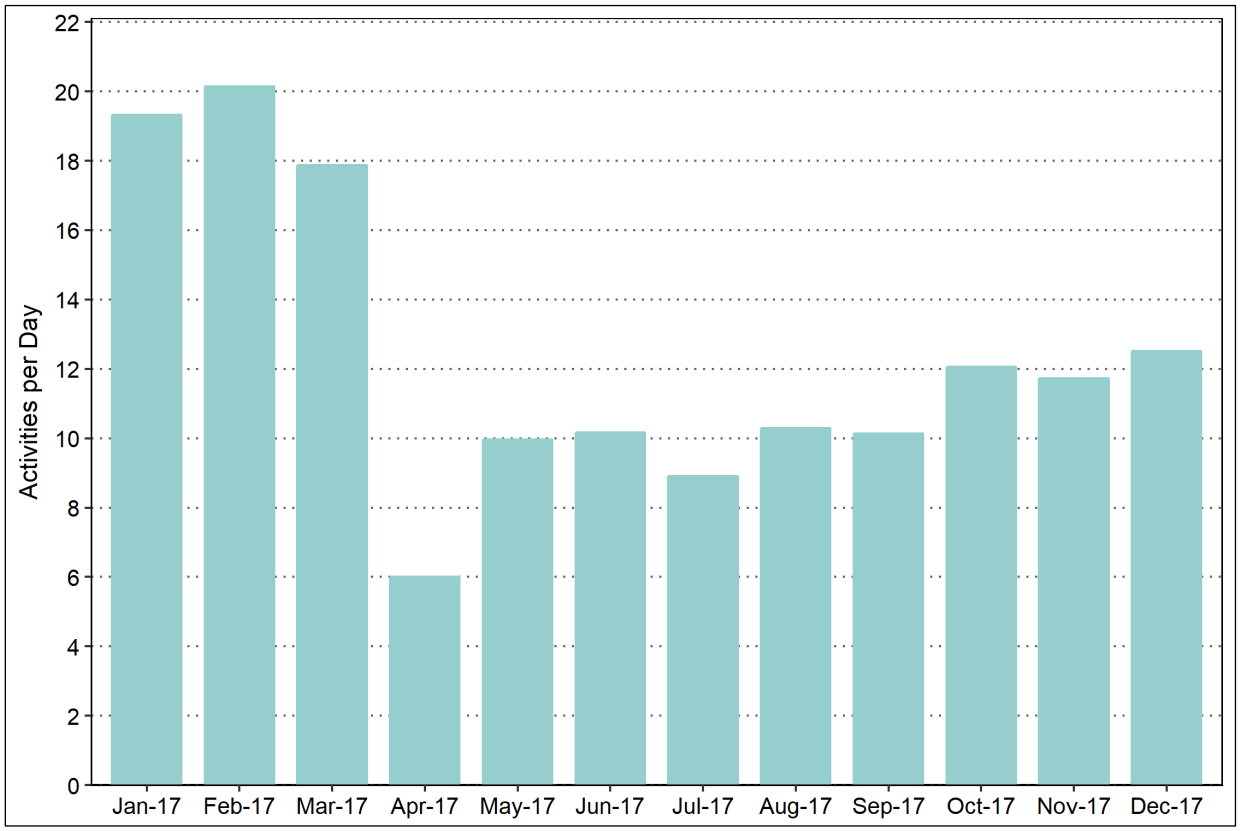
## TABLE 12: Activities and Occupied Times by Description

| Status Code | Description | Average Occupied Time | Count |
|---|---|---|---|
| CT | Court | 86.7 | 182 |
| EM | Emergency | 8.8 | 1 |
| G | Public work | 25.7 | 137 |
| MEAL | Meal | 38.2 | 2 |
| MISC | Miscellaneous | 53.4 | 2,500 |
| SELF | Self-initiated activities | 56.9 | 1,566 |
| SU | Event supplement | 121.0 | 13 |
| TN | Training | 128.6 | 64 |
| DSP | Transportation | 6.1 | 3 |
| ENR | | 27.9 | 18 |
| ONS | | 73.6 | 13 |
| TARR | | 120.4 | 1 |
| TRN | | 21.8 | 14 |
| TRNS | | 13.5 | 10 |
| **Weighted Average/Total Activities** | | **56.1** | **4,524** |

## Observations:

- The most common activity description was miscellaneous.
- The description with the longest average time was training.
- The average time spent on the activities was 56.1 minutes.

## FIGURE 12: Activities per Day, by Month



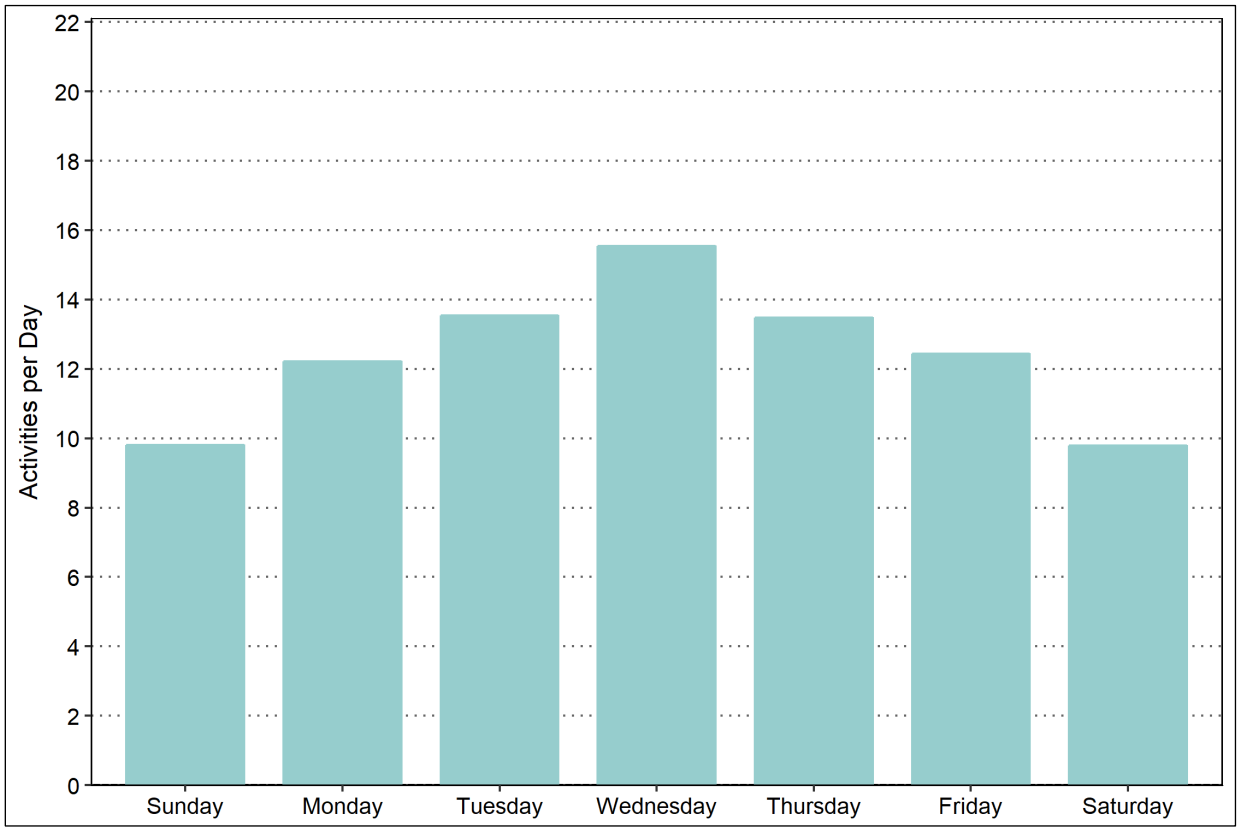

## TABLE 13: Activities per Day, by Month

| Month | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Activities** | 19.3 | 20.1 | 17.9 | 6.0 | 10.0 | 10.2 | 8.9 | 10.3 | 10.1 | 12.1 | 11.7 | 12.5 |

## Observations:

- The number of noncall activities per day was lowest in April.
- The number of noncall activities per day was highest in February.
- One CAD system recorded activities from January through March 2017, while another system recorded activities from April through December 2017.

## FIGURE 13: Activities per Day, by Day of Week



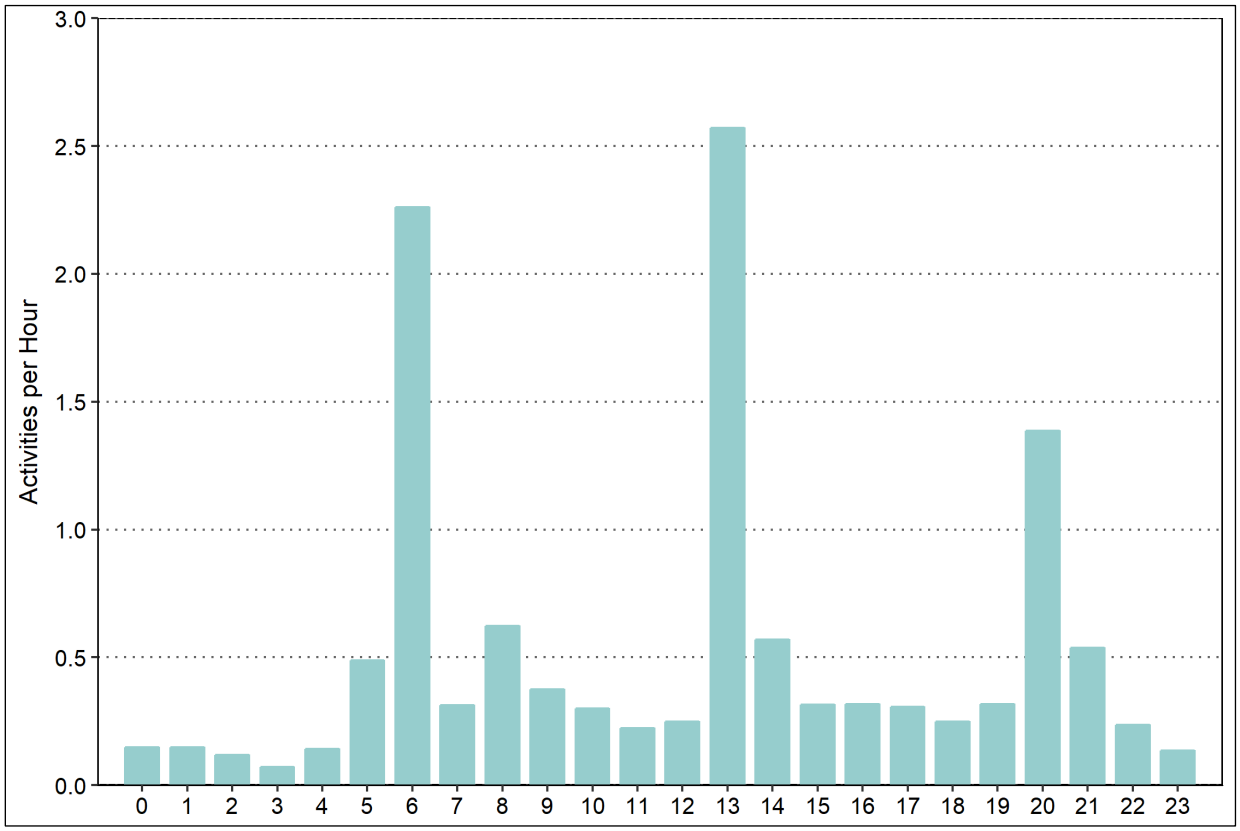

## TABLE 14: Activities per Day, by Day of Week

| Day of Week | Activities per Day |
|---|---|
| Sunday | 9.8 |
| Monday | 12.2 |
| Tuesday | 13.5 |
| Wednesday | 15.5 |
| Thursday | 13.5 |
| Friday | 12.4 |
| Saturday | 9.8 |
| **Weekly Average** | **12.4** |

## Observations:

- The number of noncall activities per day was lowest on weekends.
- The number of noncall activities per day was highest on Wednesdays.

## FIGURE 14: Activities per Day, by Hour of Day



### TABLE 15: Activities per Day, by Hour of Day

| Hour | Activities per Day |
|---|---|
| 0 | 0.1 |
| 1 | 0.1 |
| 2 | 0.1 |
| 3 | 0.1 |
| 4 | 0.1 |
| 5 | 0.5 |
| 6 | 2.3 |
| 7 | 0.3 |
| 8 | 0.6 |
| 9 | 0.4 |
| 10 | 0.3 |
| 11 | 0.2 |
| 12 | 0.2 |
| 13 | 2.6 |
| 14 | 0.6 |
| 15 | 0.3 |
| 16 | 0.3 |
| 17 | 0.3 |
| 18 | 0.2 |
| 19 | 0.3 |
| 20 | 1.4 |
| 21 | 0.5 |
| 22 | 0.2 |
| 23 | 0.1 |
| **Hourly Average** | **0.5** |

## Observations:

- The number of activities per hour was highest between 1:00 p.m. and 2:00 p.m.
- The number of activities per hour was lowest (at 0.07 activities per day) between 3:00 a.m. and 4:00 a.m.

# DEPLOYMENT

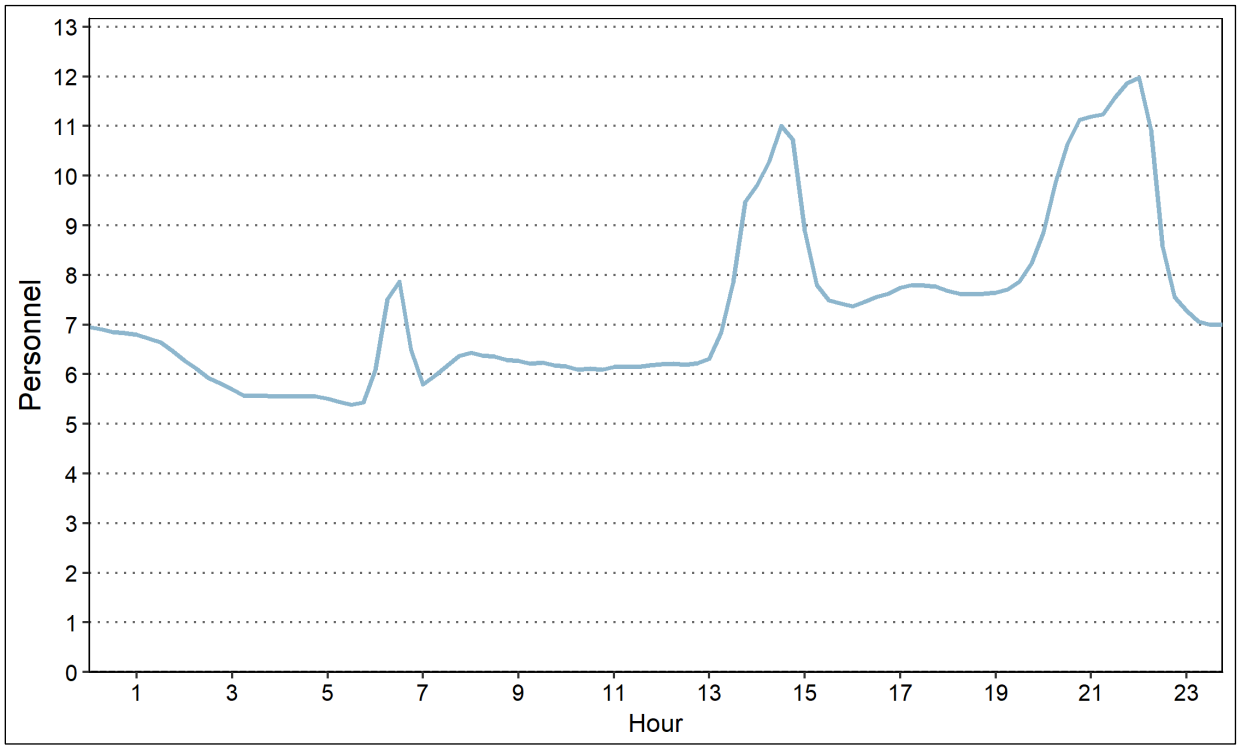
For this study, we examined deployment information for eight weeks in winter (January 4 through February 28, 2017) and eight weeks in summer (July 7 through August 31, 2017). The department's main patrol force consists of patrol officers, patrol sergeants, and K9 officers operating on three shifts: an 8.5-hour day shift starting at 6:30 a.m., an 8.5-hour evening shift starting at 2:00 p.m., and a 10-hour midnight shift starting at 9:00 p.m. This leads to three overlapping times from 6:30 a.m. to 7:00 a.m., from 2:00 p.m. to 3:00 p.m., and from 9:00 p.m. to 10:30 p.m. The police department's patrol force deployed an average of 7.1 officers per hour during the 24-hour day in winter 2017 and 6.8 officers per hour during the 24-hour day in summer 2017.

In this section, we describe the deployment and workload in distinct steps, distinguishing between winter and summer and between weekdays (Monday through Friday) and weekends (Saturday and Sunday):

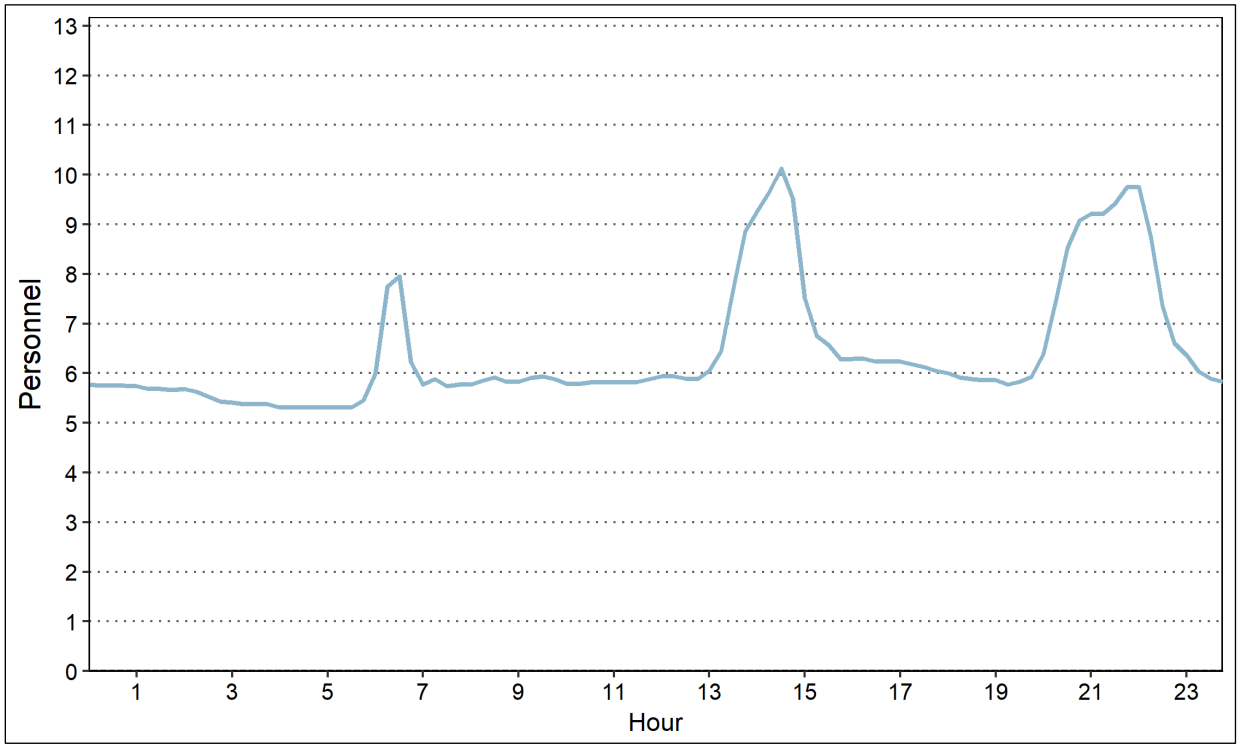
- First, we focus on patrol deployment alone.
- Next, we compare "all" workload, which includes community-initiated calls, police-initiated calls, directed patrol work, and out-of-service (non-call) activities.
- Finally, we compare workload against deployment by percentage.

Comments follow each set of four figures, with separate discussions for winter and summer.

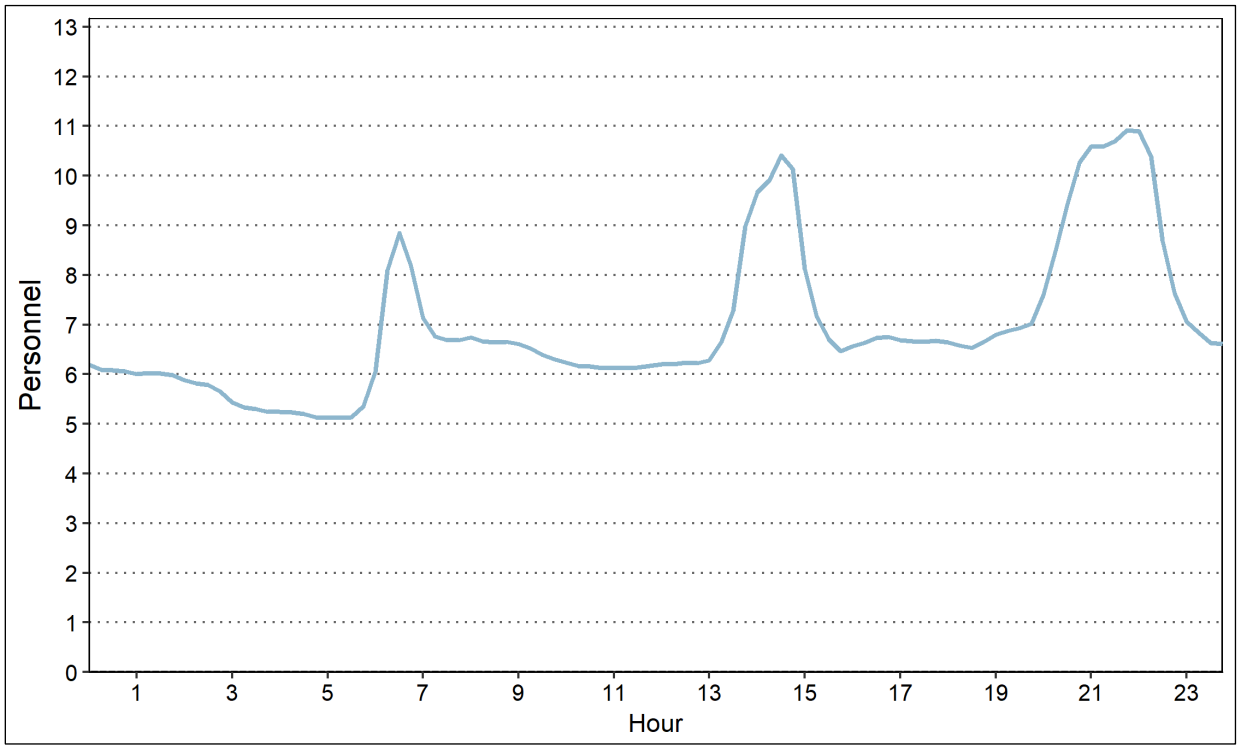
## FIGURE 15: Deployed Officers, Weekdays, Winter 2017



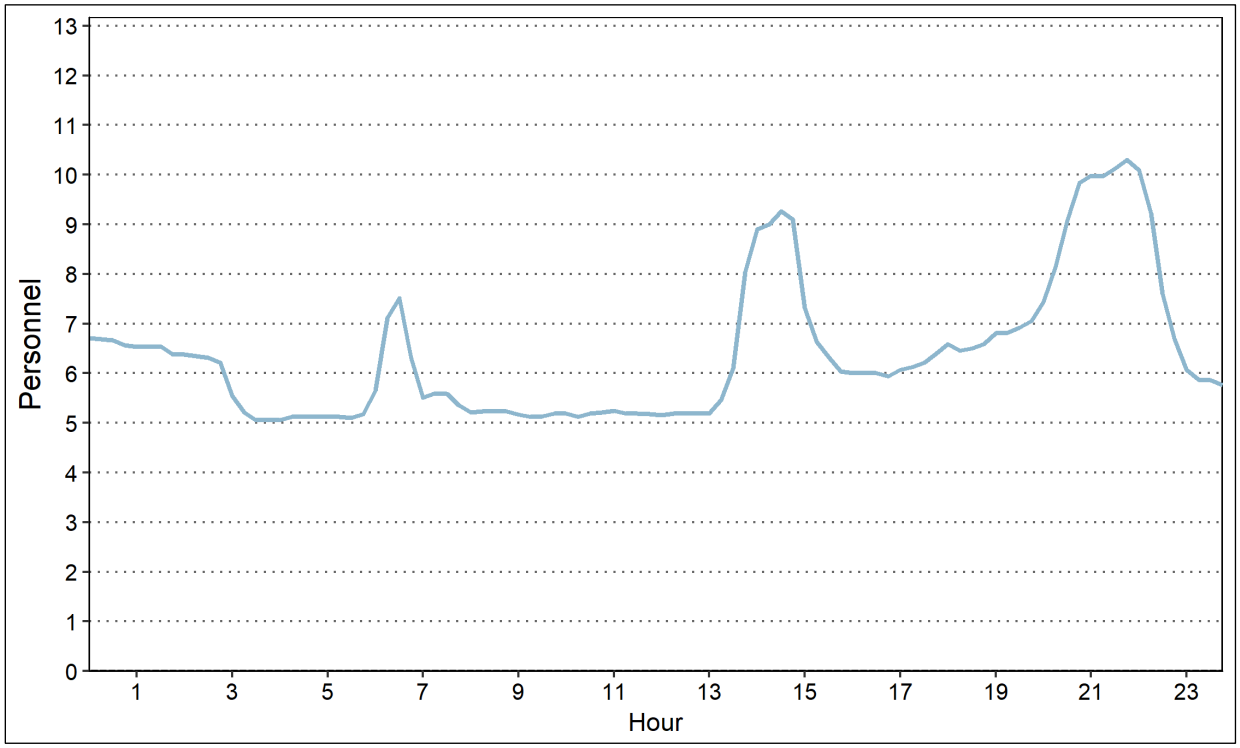

## FIGURE 16: Deployed Officers, Weekends, Winter 2017



## FIGURE 17: Deployed Officers, Weekdays, Summer 2017



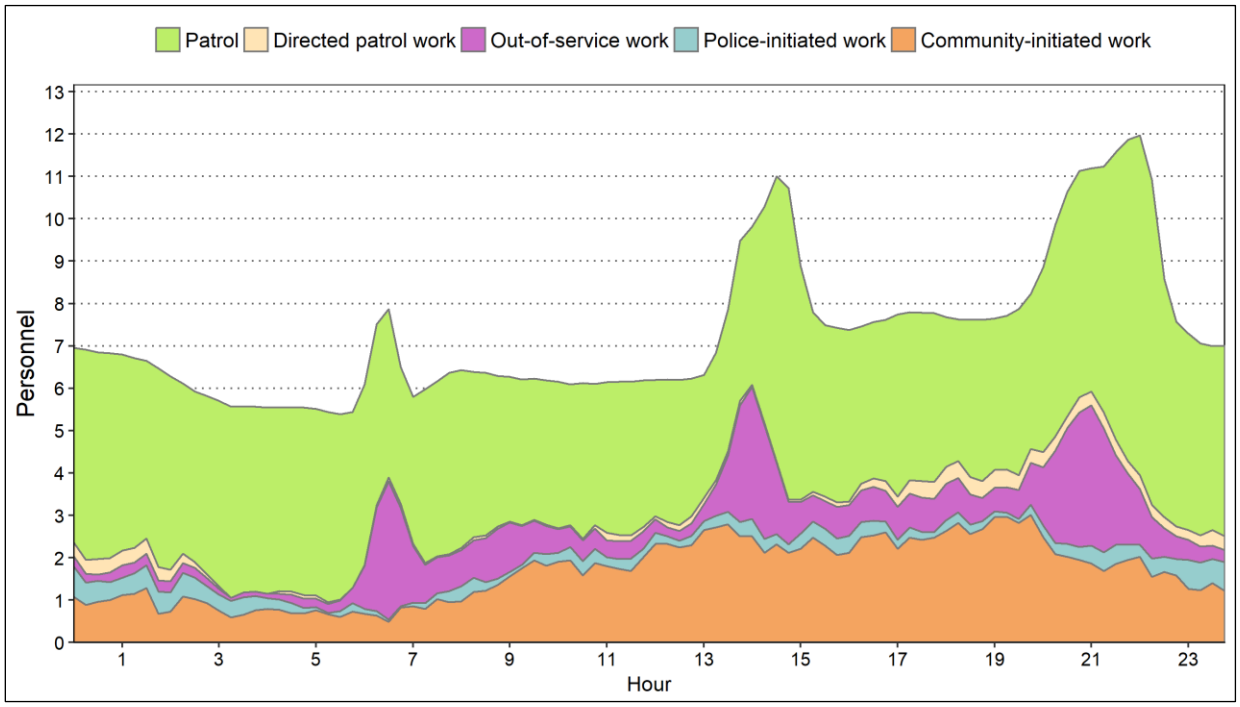

## FIGURE 18: Deployed Officers, Weekends, Summer 2017



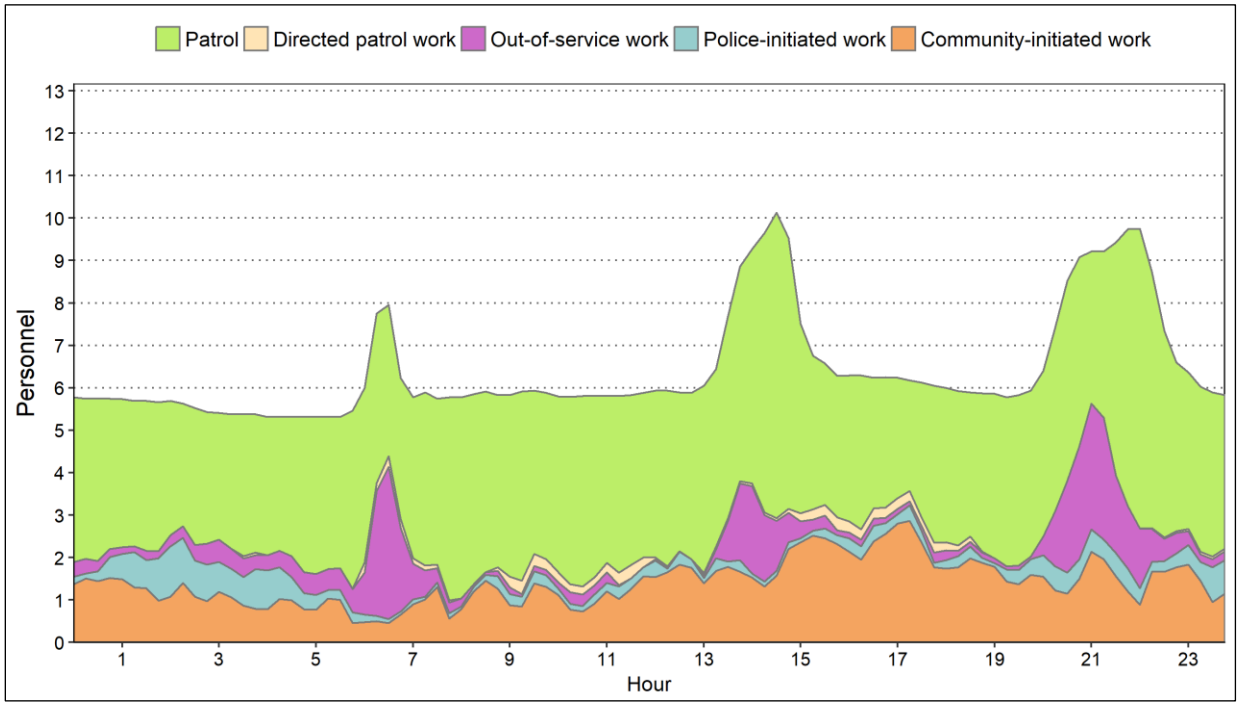
## Observations:

- For winter (January 4 through February 28, 2017):
  - The average deployment was 7.3 officers per hour during the week and 6.4 officers per hour on the weekend.
  - Average deployment varied from 5.4 to 12.0 officers per hour on weekdays and 5.3 to 10.1 officers per hour on weekends.
- For summer (July 7 through August 31, 2017):
  - The average deployment was 7.0 officers per hour during the week and 6.4 officers per hour on the weekend.
  - Average deployment varied from 5.1 to 10.9 officers per hour on weekdays and 5.1 to 10.3 officers per hour on weekends.

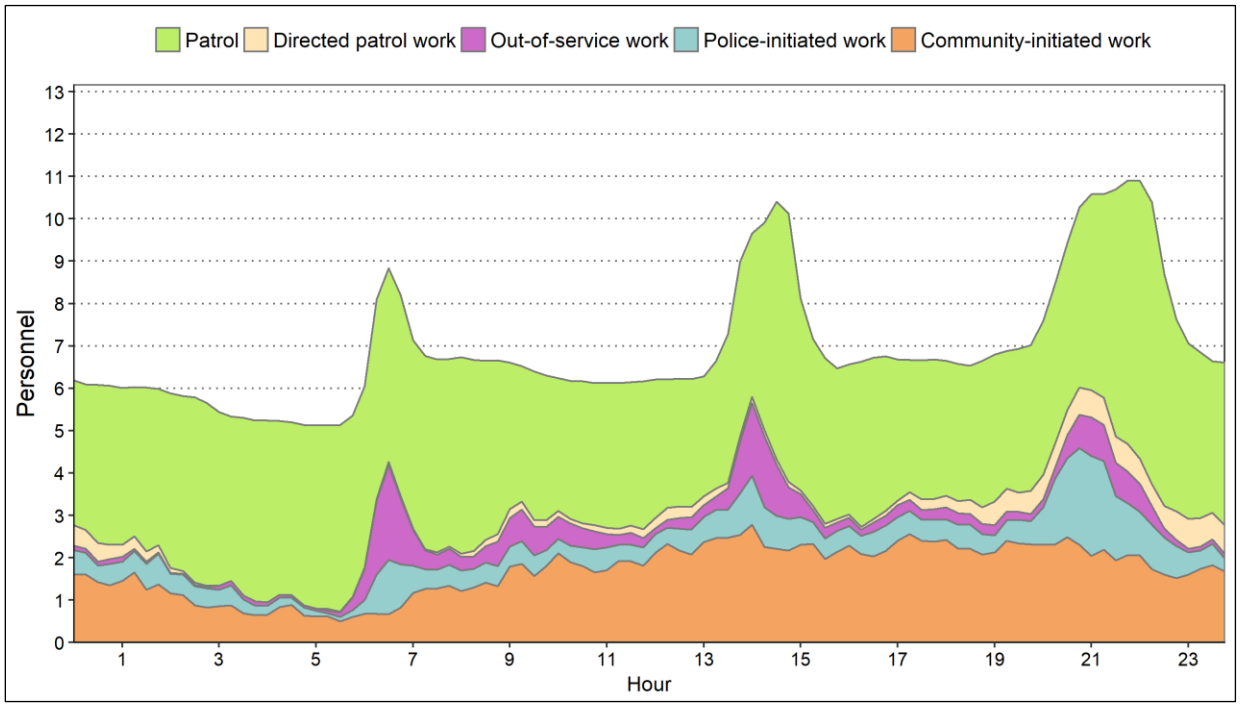
## FIGURE 19: Deployment and All Workload, Weekdays, Winter 2017



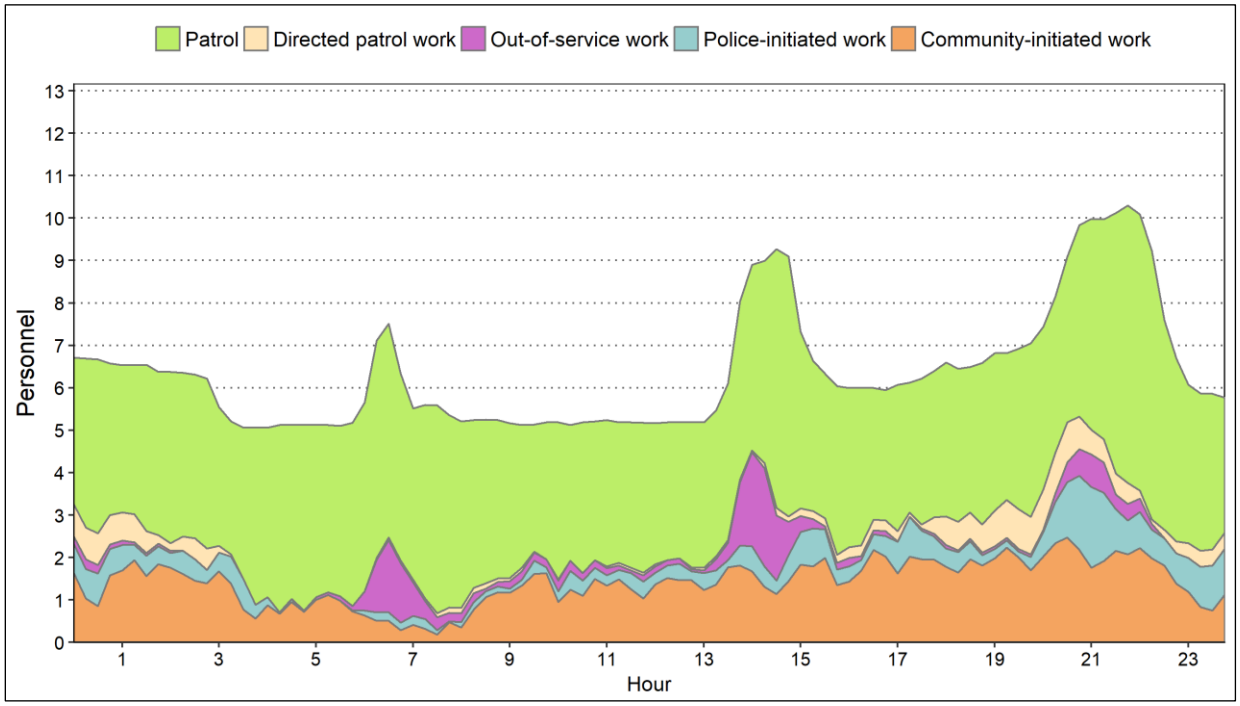

## FIGURE 20: Deployment and All Workload, Weekends, Winter 2017



## FIGURE 21: Deployment and All Workload, Weekdays, Summer 2017




## FIGURE 22: Deployment and All Workload, Weekends, Summer 2017




**Note:** Figures 19 to 22 show deployment along with all workload from community-initiated calls and police-initiated calls, directed patrol work, and out-of-service work.

## Observations:

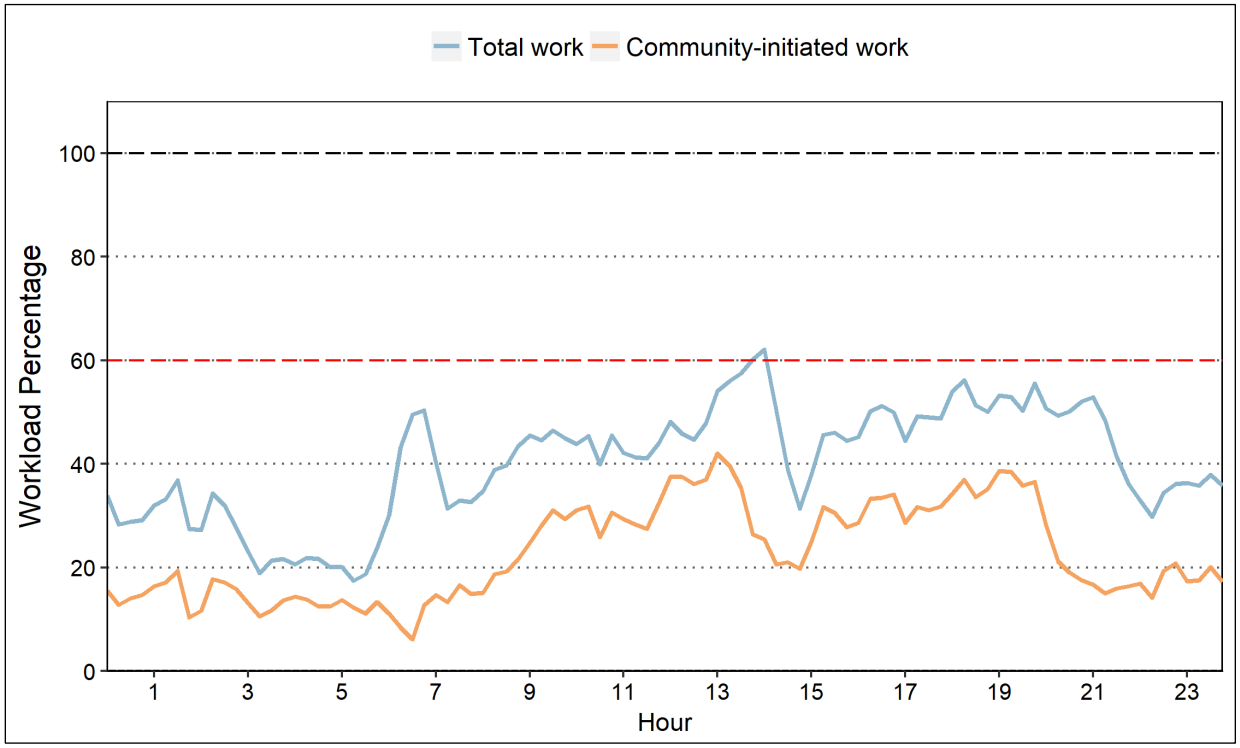
### *Winter:*

- Community-initiated work:
  - The average community-initiated workload was 1.7 officers per hour during the week and 1.4 officers per hour on weekends.
  - This was approximately 23 percent of hourly deployment during the week and 22 percent of hourly deployment on weekends.
- All work:
  - The average total workload was 3.0 officers per hour during the week and 2.4 officers per hour on weekends.
  - This was approximately 41 percent of hourly deployment during the week and 38 percent of hourly deployment on weekends.

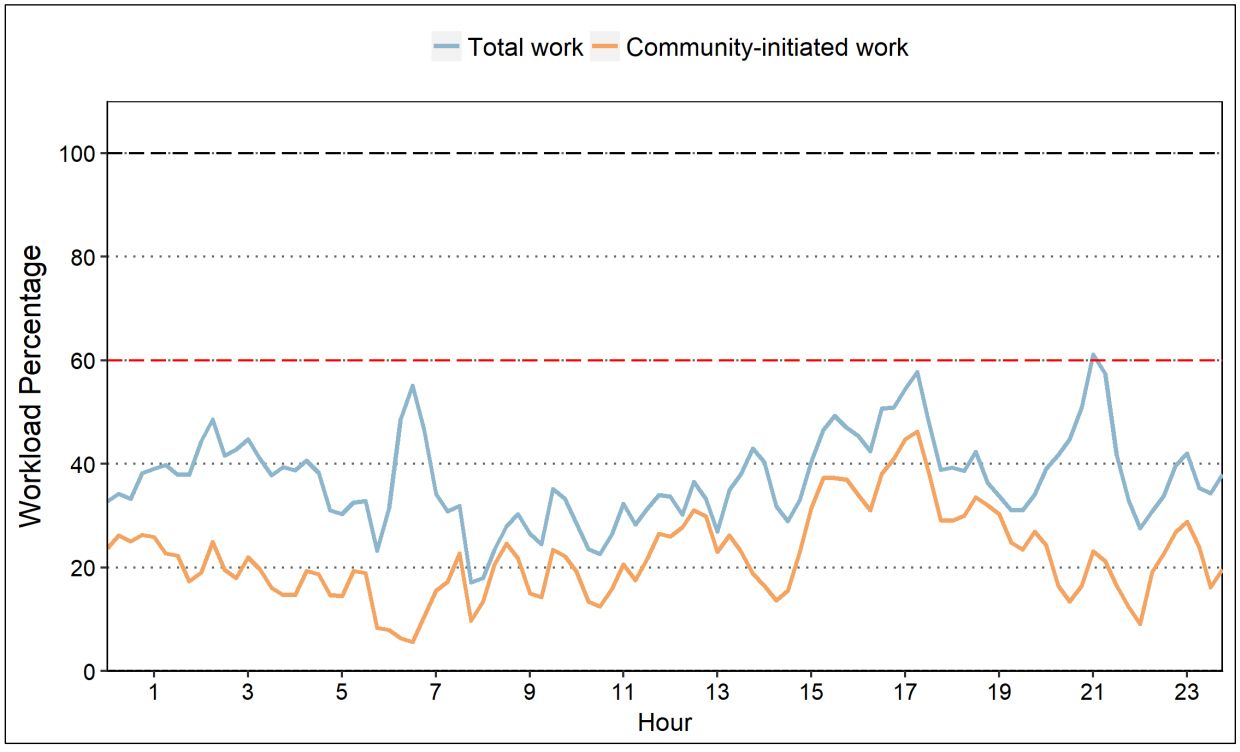
### *Summer:*

- Community-initiated work:
  - The average community-initiated workload was 1.7 officers per hour during the week and 1.4 officers per hour on weekends.
  - This was approximately 24 percent of hourly deployment during the week and 21 percent of hourly deployment on weekends.
- All work:
  - The average total workload was 3.0 officers per hour during the week and 2.4 officers per hour on weekends.
  - This was approximately 43 percent of hourly deployment during the week and 38 percent of hourly deployment on weekends.

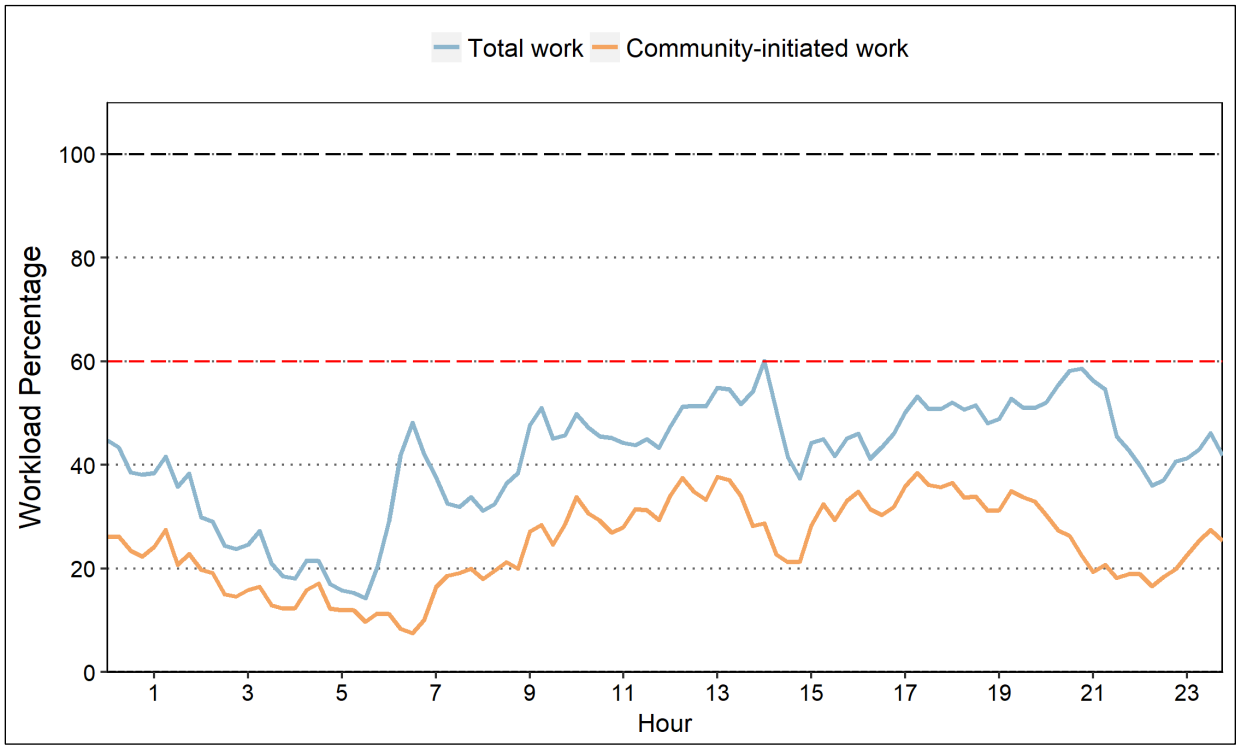
## FIGURE 23: Percentage of Workload, Weekdays, Winter 2017



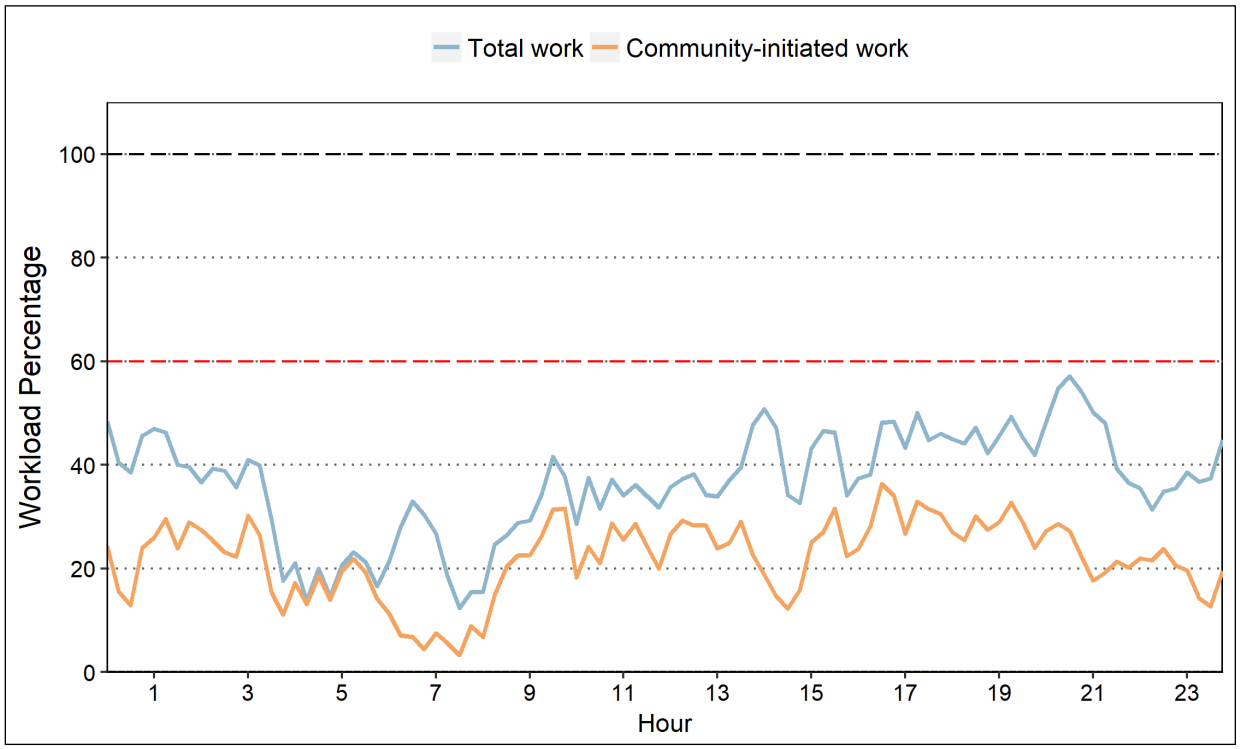

## FIGURE 24: Percentage of Workload, Weekends, Winter 2017



## FIGURE 25: Percentage of Workload, Weekdays, Summer 2017




## FIGURE 26: Percentage of Workload, Weekends, Summer 2017



## Observations:

### *Winter:*

- Community-initiated work:
  - During the week, workload reached a maximum of 42 percent of deployment between 1:00 p.m. and 1:15 p.m.
  - On weekends, workload reached a maximum of 46 percent of deployment between 5:15 p.m. and 5:30 p.m.
- All work:
  - During the week, workload reached a maximum of 62 percent of deployment between 2:00 p.m. and 2:15 p.m.
  - On weekends, workload reached a maximum of 61 percent of deployment between 9:00 p.m. and 9:15 p.m.
  - Both peaks in total workload are near the start of either the department's evening or midnight shift.

### *Summer:*

- Community-initiated work:
  - During the week, workload reached a maximum of 38 percent of deployment between 5:15 p.m. and 5:30 p.m.
  - On weekends, workload reached a maximum of 33 percent of deployment between 4:30 p.m. and 4:45 p.m.
- All work:
  - During the week, workload reached a maximum of 60 percent of deployment between 2:00 p.m. and 2:15 p.m.
  - On weekends, workload reached a maximum of 57 percent of deployment between 8:30 p.m. and 8:45 p.m.
  - Both peaks in total workload are near the start of either the department's evening or midnight shift.

# RESPONSE TIMES

We analyzed the response times to various types of calls, separating the duration into dispatch delay and travel time, to determine whether response times varied by call type. Response time is measured as the difference between when a call is received and when the first unit arrives on scene. This is further divided into dispatch delay and travel time. Dispatch delay is the time between when a call is received and when the first unit is dispatched. Travel time is the remaining time until the first unit arrives on scene.

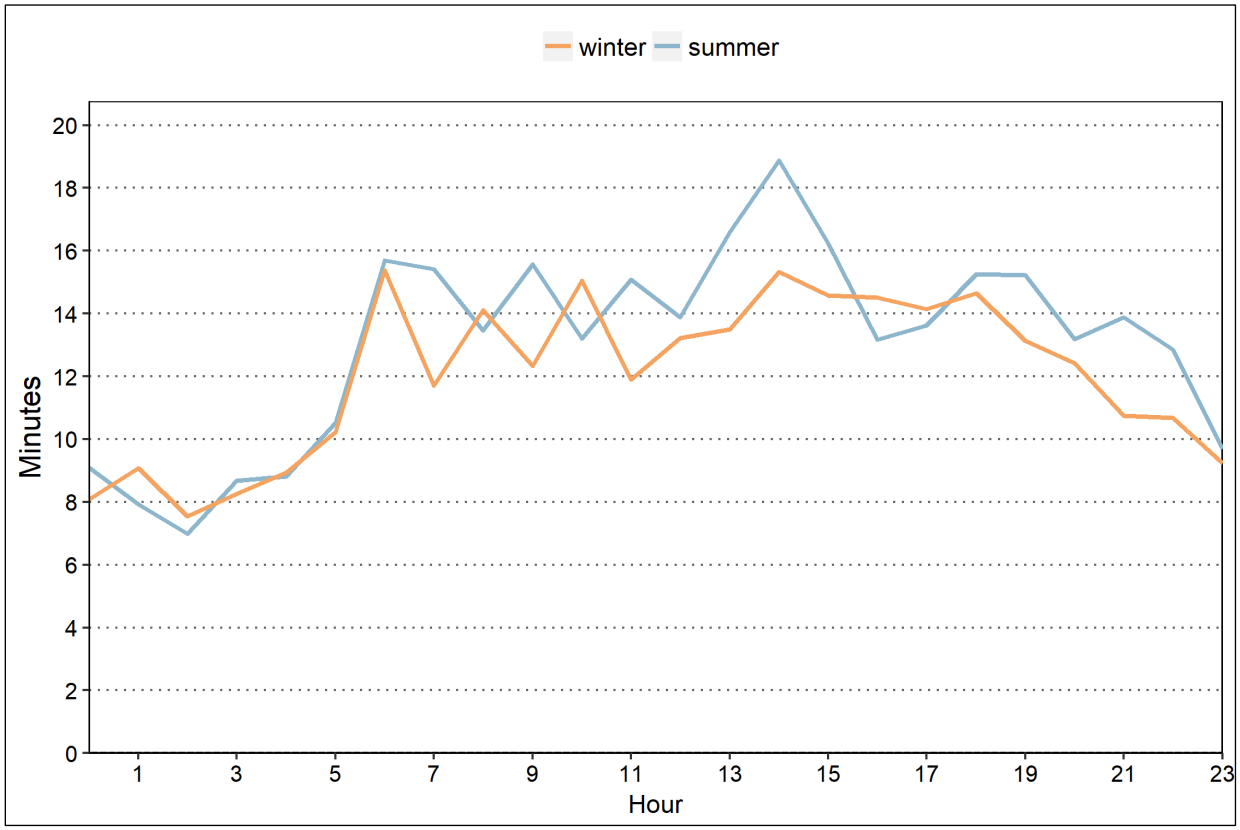
We begin the discussion with statistics that include all calls combined. We started with 3,558 calls for winter and 3,646 calls for summer. We limited our analysis to community-initiated calls, which amounted to 2,535 calls for winter and 2,497 calls for summer. After excluding calls without valid arrival times and excluding calls located within the Rockville Police Department's building, we were left with 1,957 calls in winter and 1,966 calls in summer for our analysis. For the entire year, we began with 24,004 calls, limited our analysis to 16,841 community-initiated calls, and further focused our analysis on 13,154 calls inside Rockville after excluding those lacking valid arrival times or those located at the Rockville Police Department's headquarters.

Our initial analysis does not distinguish calls on the basis of their priority; instead, it examines the difference in response to all calls by time of day and compares summer and winter periods. We then present a brief analysis of response time for high-priority calls alone.

## ALL CALLS

This section looks at all calls without considering their priorities. In addition to examining the differences in response times by both time of day and season (winter vs. summer), we show differences in response times by category.

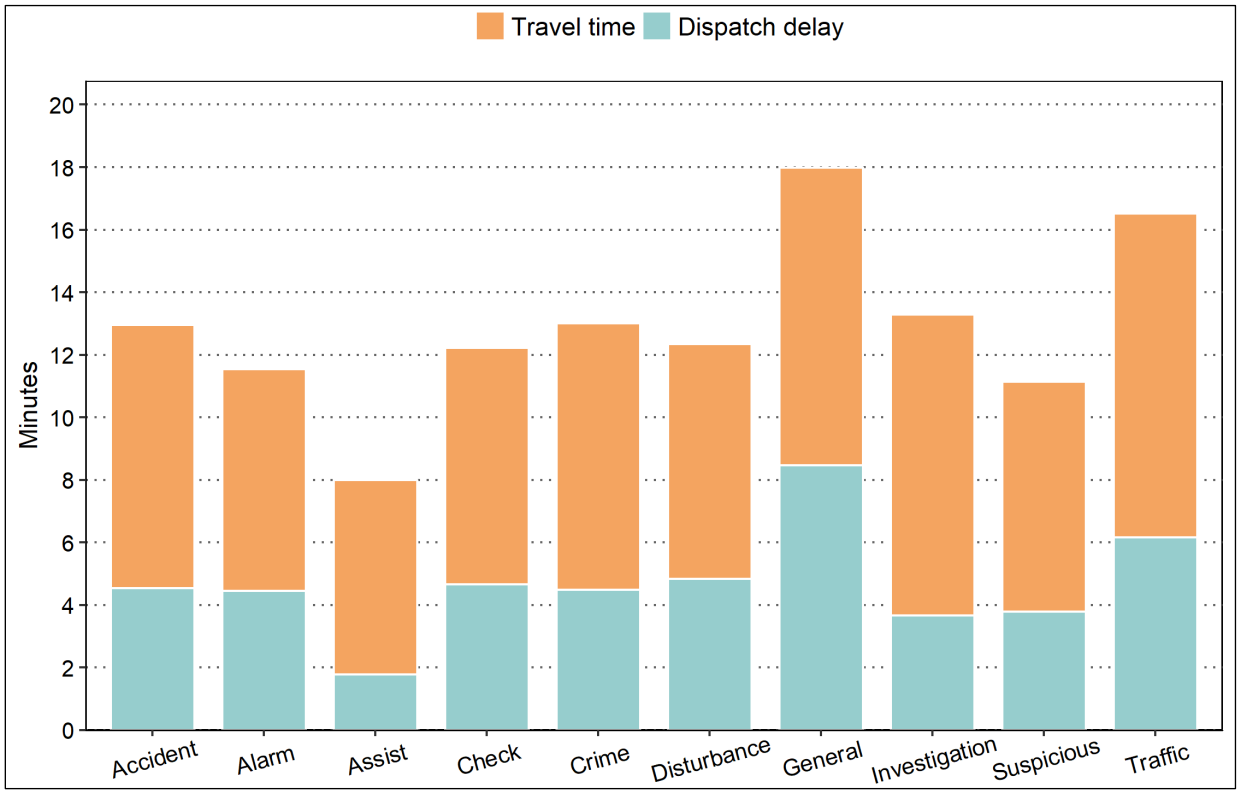
### FIGURE 27: Average Response Time and Dispatch Delays, by Hour of Day, Winter and Summer 2017



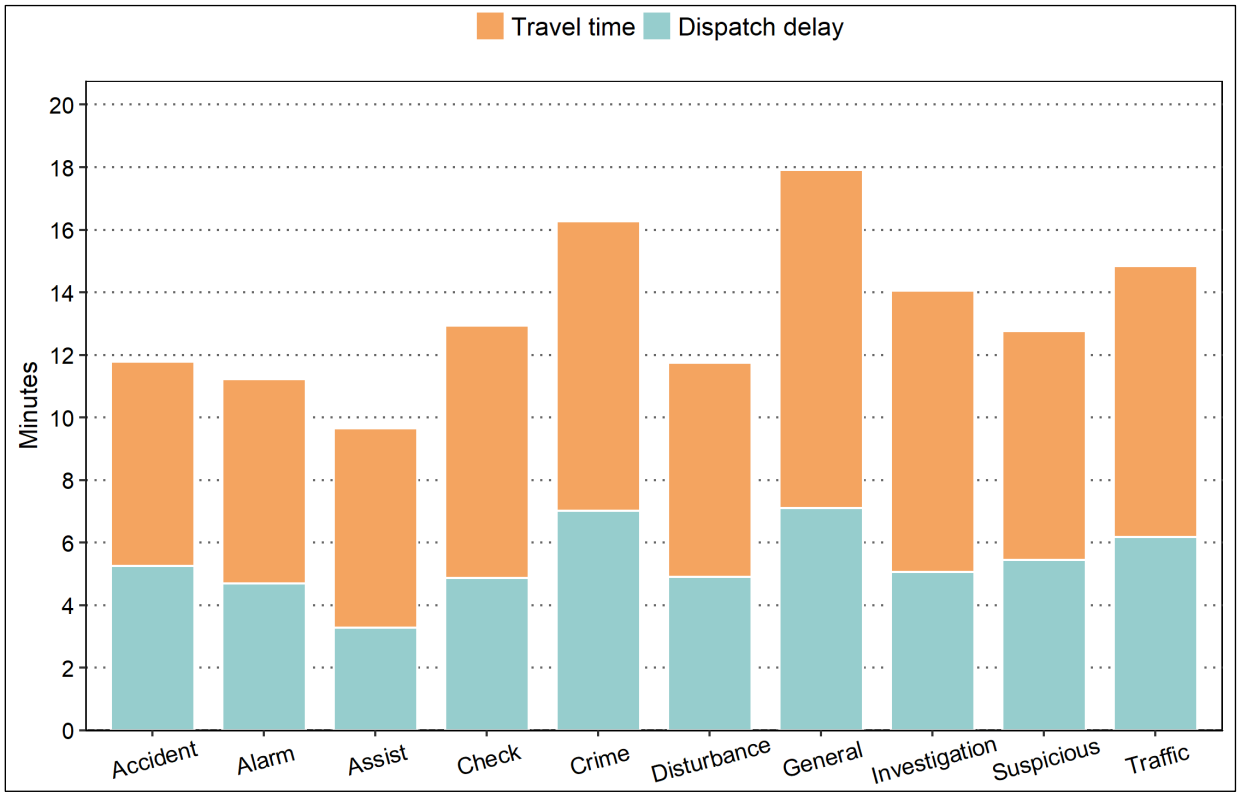

## Observations:

- Average response times varied significantly by the hour of the day.
- In winter, the longest response times were between 6:00 a.m. and 7:00 a.m. and between 2:00 p.m. and 3:00 p.m., with an average of 15.4 minutes. These times correspond with the starts of the day and evening patrol shifts.
- In winter, the shortest response times were between 2:00 a.m. and 3:00 a.m., with an average of 7.5 minutes.
- In summer, the longest response times were between 2:00 p.m. and 3:00 p.m., with an average of 18.9 minutes. This corresponds with the start of the evening patrol shift.
- In summer, the shortest response times were between 2:00 a.m. and 3:00 a.m., with an average of 7.0 minutes.

## FIGURE 28: Average Response Time by Category, Winter 2017



## FIGURE 29: Average Response Time by Category, Summer 2017



## TABLE 16: Average Response Time Components, by Category

| Category | Winter | | | Summer | | |
|---|---|---|---|---|---|---|
| | Dispatch | Travel | Response | Dispatch | Travel | Response |
| Accident | 4.5 | 8.4 | 12.9 | 5.2 | 6.5 | 11.8 |
| Alarm | 4.4 | 7.1 | 11.5 | 4.7 | 6.5 | 11.2 |
| Animal | 8.9 | 8.6 | 17.6 | 5.8 | 13.8 | 19.6 |
| Assist other agency | 1.8 | 6.2 | 8.0 | 3.3 | 6.4 | 9.7 |
| Check | 4.7 | 7.6 | 12.2 | 4.9 | 8.1 | 12.9 |
| Crime–person | 2.6 | 6.7 | 9.2 | 4.3 | 6.0 | 10.3 |
| Crime–property | 5.8 | 9.8 | 15.6 | 8.8 | 11.4 | 20.2 |
| Disturbance | 4.8 | 7.5 | 12.3 | 4.9 | 6.9 | 11.8 |
| Investigation | 3.7 | 9.6 | 13.3 | 5.1 | 9.0 | 14.1 |
| Miscellaneous | 8.3 | 9.9 | 18.2 | 7.4 | 10.1 | 17.5 |
| Suspicious incident | 3.8 | 7.4 | 11.1 | 5.4 | 7.3 | 12.8 |
| Traffic enforcement | 6.2 | 10.4 | 16.5 | 6.2 | 8.6 | 14.8 |
| **Total Average** | **4.5** | **8.2** | **12.7** | **5.7** | **8.0** | **13.7** |

**Note:** The total average is weighted according to the number of calls per category.

## Observations:

- In winter, the average response time for most categories was between 8 minutes and 17 minutes.
- In winter, the average response time was as short as 8 minutes (for agency assists) and as long as 18 minutes (for general noncriminal calls).
- In summer, the average response time for most categories was between 10 minutes and 16 minutes.
- In summer, the average response time was as short as 10 minutes (for agency assists) and as long as 18 minutes (for general noncriminal calls).
- The average response time for crimes was 13 minutes in winter and 16 minutes in summer.

## TABLE 17: 90th Percentiles for Response Time Components, by Category

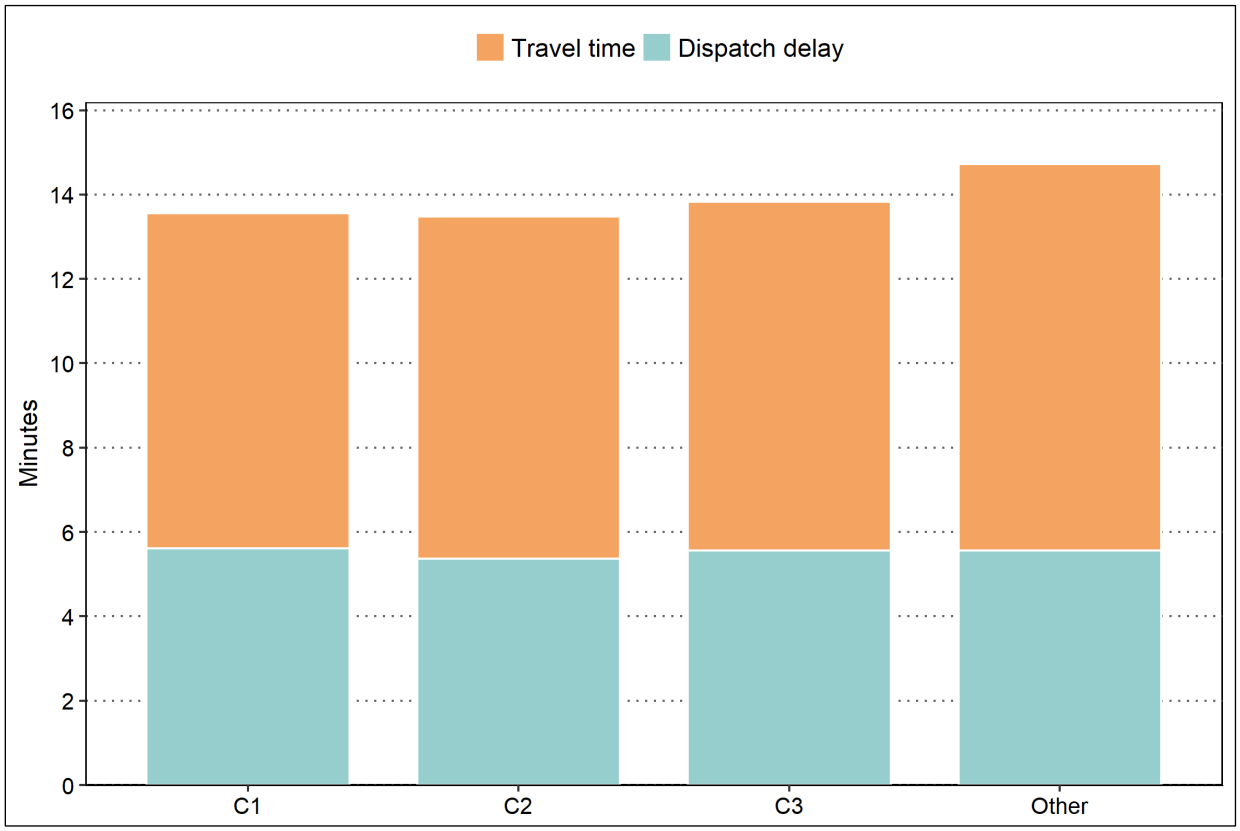
| Category | Winter | | | Summer | | |
|---|---|---|---|---|---|---|
| | Dispatch | Travel | Response | Dispatch | Travel | Response |
| Accident | 12.6 | 18.0 | 27.7 | 16.1 | 14.6 | 27.2 |
| Alarm | 7.8 | 13.4 | 20.5 | 10.1 | 11.9 | 20.1 |
| Animal | 21.6 | 19.0 | 28.0 | 20.3 | 28.1 | 45.2 |
| Assist other agency | 3.7 | 13.4 | 15.5 | 7.0 | 12.0 | 16.9 |
| Check | 8.4 | 15.5 | 22.7 | 9.6 | 14.4 | 23.6 |
| Crime–person | 5.7 | 13.0 | 17.6 | 9.4 | 12.0 | 22.6 |
| Crime–property | 16.2 | 21.4 | 36.1 | 28.3 | 27.0 | 50.0 |
| Disturbance | 12.7 | 13.5 | 21.9 | 9.7 | 14.0 | 21.1 |
| Investigation | 8.5 | 21.4 | 27.7 | 16.7 | 20.7 | 34.4 |
| Miscellaneous | 20.8 | 16.4 | 35.2 | 19.0 | 26.2 | 35.7 |
| Suspicious incident | 6.8 | 14.3 | 21.4 | 12.6 | 13.3 | 25.8 |
| Traffic enforcement | 16.9 | 21.1 | 31.7 | 16.4 | 20.8 | 30.7 |
| **Total Average** | **11.5** | **16.5** | **26.6** | **15.5** | **16.8** | **30.8** |

**Note:** A 90th percentile value of 26.6 minutes means that 90 percent of all calls are responded to in fewer than 26.6 minutes. For this reason, the columns for dispatch delay and travel time may not be equal to the total response time.

## Observations:

- In winter, the 90th percentile value for response time was as short as 16 minutes (for agency assists) and as long as 34 minutes (for general noncriminal calls).
- In summer, the 90th percentile value for response time was as short as 17 minutes (for agency assists) and as long as 42 minutes (for crimes).

## FIGURE 30: Average Response Time Components, by Beat




**Note:** Beat "other" includes calls outside defined beats and calls without location coordinates.

## TABLE 18: Average Response Time Components, by Beat

| Beat | Dispatch | Travel | Response | Calls | Area (Sq. Miles) |
|---|---|---|---|---|---|
| C1 | 5.6 | 7.9 | 13.6 | 3,715 | 3.5 |
| C2 | 5.4 | 8.1 | 13.5 | 3,821 | 4.1 |
| C3 | 5.6 | 8.3 | 13.8 | 5,129 | 5.9 |
| Other | 5.6 | 9.2 | 14.7 | 489 | NA |
| **Weighted Average/ Total** | **5.5** | **8.2** | **13.7** | **13,154** | **13.6** |

## Observations:

- Average response times to calls within all beats were quite similar.
- Beat C2 had a slightly shorter average response time and a slightly shorter average dispatch time.

## HIGH-PRIORITY CALLS

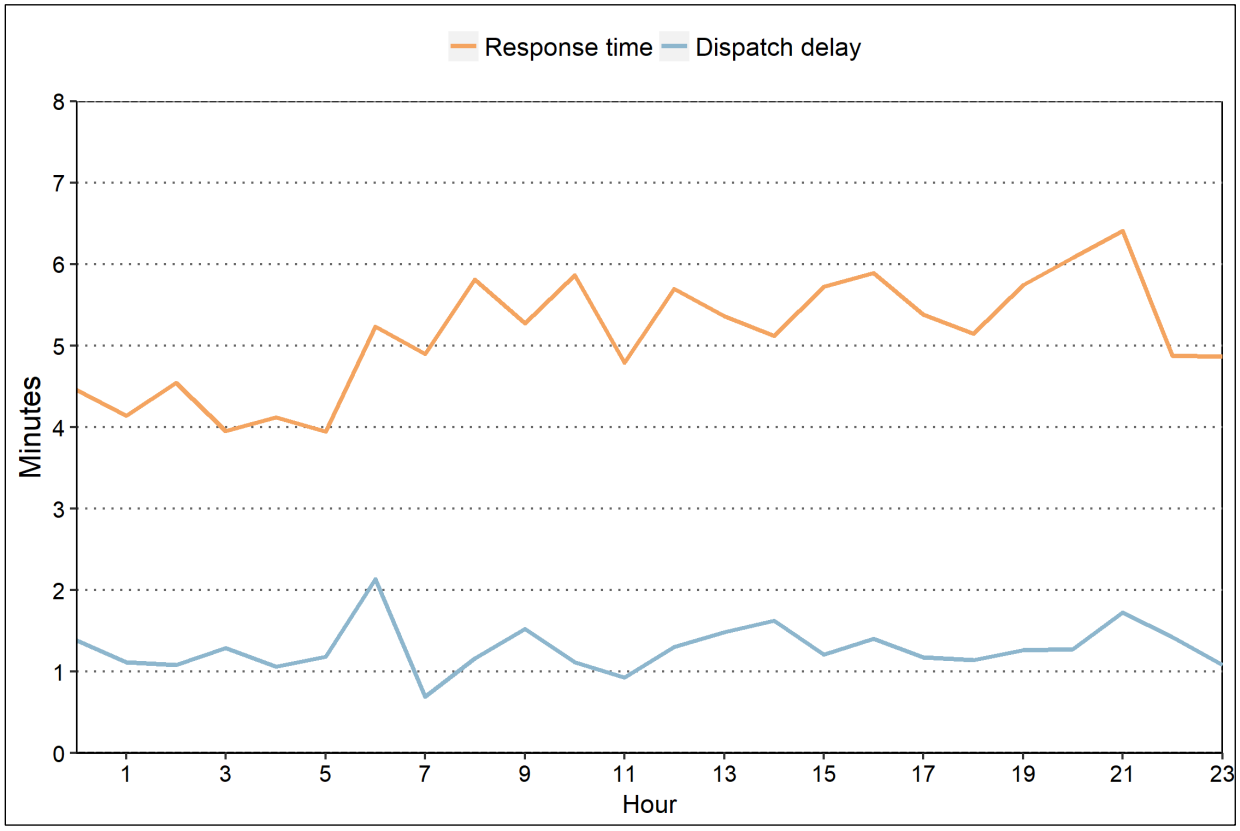
The department assigned priorities to calls with Priority "0" as the highest priority. The department's earlier CAD system used 10 priorities labeled 0 through 9. The department's new CAD system uses 5 priorities labeled 0 through 4. Table 19 shows a separate analysis of average response times by priority and CAD system. In addition, there is a final row that includes injury accidents for the entire year. Figure 31 focuses on Priority "0" calls only, but includes records from both CAD systems.

### TABLE 19: Average Dispatch, Travel, and Response Times, by Priority

| Priority | Dispatch Delay | Travel Time | Response Time | Calls |
|---|---|---|---|---|
| 0 | 0.7 | 4.1 | 4.8 | 348 |
| 1 | 3.0 | 7.7 | 10.6 | 173 |
| 2 | 3.3 | 7.4 | 10.7 | 554 |
| 3 | 4.1 | 7.4 | 11.5 | 935 |
| 4 | 5.2 | 9.1 | 14.3 | 288 |
| 5 | 5.6 | 9.6 | 15.2 | 307 |
| 6 | 9.1 | 10.6 | 19.7 | 74 |
| 7 | 10.7 | 14.2 | 24.8 | 155 |
| 8 | 10.5 | 13.6 | 24.1 | 227 |
| 9 | 4.5 | 10.4 | 14.8 | 20 |
| Unknown | 5.6 | 5.9 | 11.5 | 130 |
| **Weighted Average/Total (Old CAD)** | **4.7** | **8.2** | **12.9** | **3,211** |
| 0 | 1.5 | 4.0 | 5.5 | 1,123 |
| 1 | 4.8 | 7.4 | 12.2 | 4,448 |
| 2 | 5.8 | 8.1 | 13.9 | 2,584 |
| 3 | 8.4 | 11.2 | 19.7 | 459 |
| 4 | 11.8 | 13.2 | 25.0 | 1,329 |
| **Weighted Average/Total (New CAD)** | **5.8** | **8.1** | **13.9** | **9,943** |
| **Weighted Average/Total** | **5.5** | **8.2** | **13.7** | **13,154** |
| Injury accidents | 2.0 | 4.7 | 6.7 | 294 |

**Note:** The total average is weighted according to the number of calls within each priority level.

## FIGURE 31: Average Response Times and Dispatch Delays for High-priority Calls, by Hour



## Observations:

- High-priority calls had an average response time of 5.3 minutes, lower than the overall average of 13.7 minutes for all calls.
- Average dispatch delay was 1.3 minutes for high-priority calls, compared to 5.5 minutes overall.
- For high-priority calls, the longest response times were between 9:00 p.m. and 10:00 p.m., with an average of 6.4 minutes.
- For high-priority calls, the shortest response times were between 3:00 a.m. and 4:00 a.m. and between 5:00 a.m. and 6:00 a.m., with an average of 3.9 minutes.
- Average dispatch delay for high-priority calls was consistently 1.7 minutes or less, except between 6:00 a.m. and 7:00 a.m.
- Average response time for injury accidents was 6.7 minutes, with a dispatch delay of 2.0 minutes.

# APPENDIX A: CALL TYPE CLASSIFICATION

Call descriptions for the department's calls for service from January 1, 2017 to December 31, 2017, were classified into the following categories.

### TABLE 20: Call Type, by Category

| Call Type | Table Category | Figure Category |
|---|---|---|
| PEDESTRIAN STRUCK | Accident | Accident |
| PERS INJURY COL-NEW | | |
| PROP DAMAGE COL | | |
| PROP DAMAGE COL-NEW | | |
| PROP DAMAGE COL H/R | | |
| PROP DAMAGE COL H/R-NEW | | |
| TC - TRAFFIC COLLISION ON PATROL | | |
| TRAFFIC/TRANSPORATION INCIDENT | | |
| TRAFFIC/TRANSPORTATION INCIDENT | | |
| TRF. COLL. ON PATROL | | |
| 10 SIGNAL ALARM-NEW | Alarm | Alarm |
| ALARMB - ALARM BURGLARY/INTRUSION | | |
| ALARMD - ALARM HOLDUP/PANIC/DURESS | | |
| ALARMU - ALARM OTHER/UNKNOWN | | |
| ALARMV - ALARM VEHICLE | | |
| ALRM - ALARM ON PATROL | | |
| AUTO ALARM-NEW | | |
| BANK ALARM | | |
| BANK HOLDUP ALARM | | |
| COMM DURESS ALARM | | |
| COMM HOLUP ALARM | | |
| COMM PANIC ALARM | | |
| CRYWOLF INTERFACE INCIDENT TYPE | | |
| OTHER CMRCIAL ALARM | | |
| RESD DURESS ALARM | | |
| RESD HOLDUP ALARM | | |
| RESD PANIC ALARM | | |
| RESIDENTIAL ALARM | | |
| ASSIST OTHER AGENCY | Assist other agency | Assist other agency |
| ASSIST OTHER AGENCY-NEW | | |
| AUTO FIRE - VIA FRS | | |

| Call Type | Table Category | Figure Category |
|---|---|---|
| BOX ALARM - VIA FRS | | |
| HAZARDOUS MATERIAL - FRS | | |
| HAZARDOUS MATERIAL - VIA FRS | | |
| MENTAL DISORDER | | |
| MENTAL DISORDER - VIA FRS | | |
| NON-PRIORITY RESPONSE TRANSPORT | | |
| NON PRIORITY RESP TRANS | | |
| OVERDOSE - VIA FRS | | |
| PRIORITY RESPONSE TRANSPORT | | |
| RESCUE WITH FRS | | |
| TRAFFIC ASSIST FOR FRS | | |
| URGENT ASSIST | | |
| URGENT ASSIST-NEW | | |
| VIOLENT MO - VIA FRS | | |
| WORKING CODE | | |
| WORKING CODE VIA FRS-NEW | | |
| CHECK WELFARE | Check | Check |
| CHK THE WELFARE-NEW | | |
| E911 DISCONNECT | | |
| E911 DISCONNECT-NEW | | |
| SS - SUBJECT STOP | | |
| SUBJECT STOP | | |
| ABDUCTION (KIDNAPPING) - CUSTODIAL ABDUCTION, HOSTAGE SITUAT | Crime–person | Crime |
| ABUSE | | |
| ABUSE-NEW | | |
| ABUSE, ABANDONMENT, NEGLECT | | |
| ASSAULT | | |
| ASSAULT ROUTINE | | |
| ASSAULT ROUTINE RESP | | |
| CAR JACKING | | |
| DOMEST VIOL ROUTINE RESP | | |
| DOMESTIC DISPUTE | | |
| DOMESTIC DISPUTE-NEW | | |
| DOMESTIC DISTURBANCE/VIOLENCE | | |
| DOMESTIC VIOLENCE | | |
| HARASS PHONE | | |
| HARASS PHONE-NEW | | |

| Call Type | Table Category | Figure Category |
|---|---|---|
| HARASSMENT, STALKING, THREATS | | |
| INDECENCY/LEWDNESS | | |
| INDECENT EXPOSURE | | |
| INDECENT EXPOSURE-NEW | | |
| KIDNAPPING-NEW | | |
| NEGLECT-NEW | | |
| PROSTITUTION | | |
| ROBBERY | | |
| ROBBERY-NEW | | |
| SEX ASSAULT | | |
| SEX ASSAULT ROUTINE | | |
| SEX ASSAULT ROUTINE RESP | | |
| SEXP - SEX OFFENSE ON PATROL | | |
| SEXUAL ASSAULT | | |
| STALKING | | |
| STALKING-NEW | | |
| THREATS | | |
| THREATS-NEW | | |
| TRU - HARASS PHONE CALL | | |
| TRU - THREATS | | |
| WEAPONS DISCHRG/POSS-NEW | | |
| WEAPONS OFFENSE | | |
| WEAPONS OFFENSE-NEW | | |
| WEAPONS/FIREARMS | | |
| AUTO THEFT ON PATROL | Crime–property | |
| BOMB THREAT-NEW | | |
| BURGLARY | | |
| BURGLARY-NEW | | |
| CDS | | |
| CDS-NEW | | |
| CDS ON PATROL - NEW | | |
| CDS POSSESSION | | |
| CDSP - CDS ON PATROL | | |
| FRAUD | | |
| FRAUD-NEW | | |
| FRAUD/DECEPTION | | |
| THE - THEFT ON PATROL | | |

| Call Type | Table Category | Figure Category |
|---|---|---|
| THEFT | | |
| THEFT-NEW | | |
| THEFT FROM AUTO | | |
| THEFT FROM AUTO-NEW | | |
| THEFT/LARCENY | | |
| THEFT/LARCENY - HOLDING SUSPECT | | |
| THEFT/LARCENY FROM AUTO | | |
| THEFTT - TRS THEFT/LARCENY | | |
| TRE - TRESP ON PATROL | | |
| TRESPASSING | | |
| TRESPASSING-NEW | | |
| TRESPASSING/UNWANTED | | |
| TRESSPASSING ON PATROL | | |
| TRU - FRAUD | | |
| TRU - THEFT | | |
| VANDALISM | | |
| VANDALISM - NEW | | |
| VANDALISM ON PATROL - NEW | | |
| VANDALISM, DAMAGE, MISCHIEF | | |
| VANDALISM, DAMAGE, MISCHIEF-TRS | | |
| VEHICLE THEFT | | |
| VEHICLE THEFT-NEW | | |
| DETAIL | Directed patrol | Directed patrol |
| DT - DETAIL | | |
| GH - HOSPITAL GUARD DETAIL | | |
| HOSP. GUARD DTL. | | |
| DC - DISORD COND ON PATROL | Disturbance | Disturbance |
| DISORD. COND. ON PATROL | | |
| DISORDERLY CONDUCT | | |
| DISORDERLY CONDUCT-NEW | | |
| DISPUTE - VERBAL | | |
| DISPUTE - VERBAL-NEW | | |
| DISTURBANCE/NUISANCE | | |
| ADMINISTRATIVE (DOCUMENT, LOST OR FOUND PROP, MESSAGES-TRS | Administrative | General noncriminal |
| ADMINISTRATIVE (DOCUMENT, LOST OR FOUND PROPERTY, MESSAGES, | | |
| CM - COMMUNITY MEETING | | |

| Call Type | Table Category | Figure Category |
|---|---|---|
| COMMUNITY MEETING | | |
| EMERG. PETITION SERVICE | | |
| EXPARTE SERVICE | | |
| LOSTT-TRS ADMIN (DOCUMENT, LOST OR FOUND PROP, MESSAGES | | |
| WR - WRITING REPORT | | |
| ANI - ANIMAL COMPL ON PATROL | Animal | |
| ANIMAL ABUSE | | |
| ANIMAL COMP-NEW | | |
| ANIMAL COMPL | | |
| ANIMAL COMPL ON PATROL | | |
| ANIMAL MISC | | |
| ANIMAL MISC-NEW | | |
| ANIMAL RESCUE | | |
| ANIMAL RESCUE-NEW | | |
| ANIMAL VICIOUS | | |
| VICIOUS ANIMAL | | |
| VICIOUS ANIMAL-NEW | | |
| ASSIST/STANDBY | Miscellaneous | |
| EVICTION | | |
| MIS - MISC ON PATROL | | |
| MISC-ADMIN (DOCUMENT, LOST OR FOUND PROPERTY, MESSAGES, | | |
| NOTIFICATION-NEW | | |
| OC - OUT OF COUNTY | | |
| OFFICER IN TROUBLE | | |
| OTHER MISC CALLS-NEW | | |
| OUT OF COUNTY | | |
| SELF INTIATED CALL | | |
| SIGNAL13 | | |
| STANDBY BELONGINGS-NEW | | |
| STATION RESPONSE | | |
| STATION RESPONSE-NEW | | |
| SUM - SUMMONS SERVICE | | |
| SUMMONS SERVICE | | |
| T - TRANSPORT | | |
| TRANSPORT | | |
| WANTED PERSON, VEHICLE | | |

| Call Type | Table Category | Figure Category |
|---|---|---|
| WARRANT SERVICE | | |
| WS - WARRANT SERVICE | | |
| CHK FUG/WANTED PERS-NEW | Investigation | Investigation |
| DECEASED PERSON | | |
| DOA-NEW | | |
| FOLLOW UP/SUPPLEMENTAL INFORMATION | | |
| FOLLOWT-TRS / SUPPLEMENTAL INFORMATION | | |
| FOLLOWUP/SUPP RPT | | |
| FOLLOWUP/SUPP RPT-NEW | | |
| FOUND PROPERTY | | |
| FOUND PROPERTY-NEW | | |
| INV - POLICE INVESTIGATION | | |
| LOST PROPERTY | | |
| LOST PROPERTY-NEW | | |
| MENTAL OBSERVANT | | |
| MENTAL OBSERVANT-NEW | | |
| MISS. PERS. ON PATROL | | |
| MISS@RISK-NOTIFY SMT-NEW | | |
| MISSING PERSON | | |
| MISSING PERSON-NEW | | |
| MISSING, RUNAWAY, FOUND PERSON | | |
| MP - MISSING PERSON ON PATROL | | |
| OVERDOSE-NEW | | |
| POLICE INVESTIGATION | | |
| RP - RECOVERED PROPERTY ON PATROL | | |
| SUICIDAL PERSON/ATTEMPTED SUICIDE | | |
| SUICIDE-NEW | | |
| BOMB DEVICE FOUND, SUSP PACKAGE, CONTAMINATION | Suspicious incident | Suspicious incident |
| BOMB PLANT / SUSP PKG-NEW | | |
| S - SUSPICIOUS SITUATION ON PATROL | | |
| SUSICIOUS CIRCUMSTANCE, PERSON, VEHICLE | | |
| SUSP SIT/PER/VEH | | |
| SUSP SIT/PER/VEH-NEW | | |
| SUSP SIT/VEH/PER ON PTL | | |
| SUSPICIOUS CIRC, PERSONS, VEHICLE | | |
| DRIV UNDER INFLUENCE-NEW | Traffic enforcement | Traffic |
| DRIVING UNDER THE INFLUENCE | | |

| Call Type | Table Category | Figure Category |
|---|---|---|
| LOCK OUT/IN | | |
| LOCKED IN VEHICLE-NEW | | |
| PARKING OFFENSE | | |
| PARKING OFFENSE-NEW | | |
| TD - TRAFFIC DETAIL | | |
| TRAFFIC DETAIL | | |
| TRAFFIC PROB ON PATROL | | |
| TRAFFIC PURSUIT | | |
| TRAFFIC STOP | | |
| TRAFFIC VIOLATION | | |
| TRF - TRAFFIC PROBLEM ON PATROL | | |
| TRF HAZARD | | |
| TRF HAZARD-NEW | | |
| TS - TRAFFIC STOP | | |

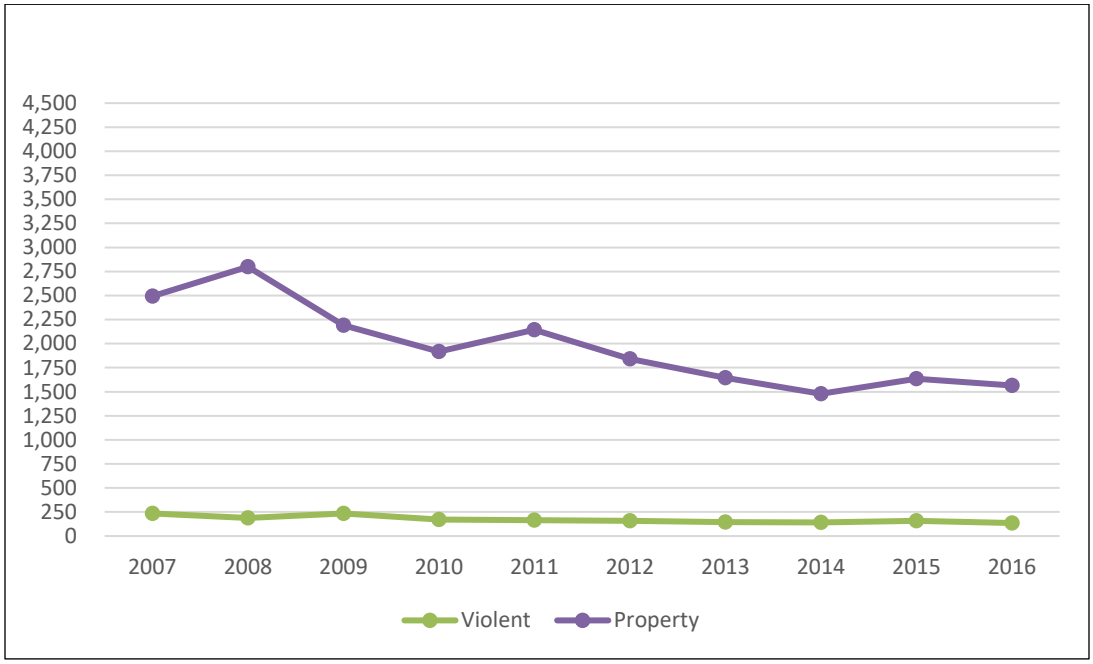
# APPENDIX B: UNIFORM CRIME REPORT INFORMATION

This section presents information obtained from Uniform Crime Reports (UCR) collected by the Federal Bureau of Investigation (FBI) and the Metropolitan Washington Council of Governments. The tables and figures include the most recent information that is publicly available at the national level. This includes crime reports for 2007 through 2016, along with clearance rates for 2016. Crime rates are expressed as incidents per 100,000 population.

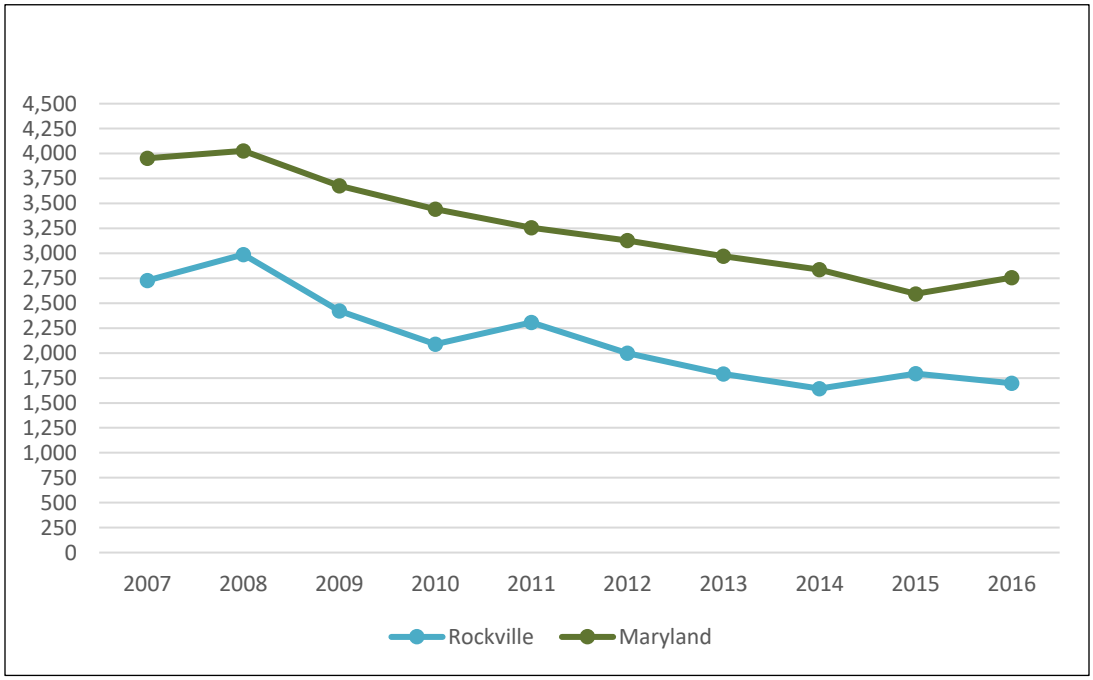
## TABLE 21: Reported Crime Rates in 2016, by City

| City | State | Population | Crime Rates | | |
|---|---|---|---|---|---|
| | | | Violent | Property | Total |
| Aberdeen | MD | 15,704 | 503 | 1,598 | 2,101 |
| Annapolis | MD | 39,703 | 630 | 2,363 | 2,992 |
| Bladensburg | MD | 9,433 | 997 | 3,127 | 4,124 |
| Bowie | MD | 58,000 | 95 | 1,303 | 1,398 |
| Cumberland | MD | 19,995 | 885 | 6,092 | 6,977 |
| Easton | MD | 16,689 | 252 | 2,768 | 3,020 |
| Elkton | MD | 15,837 | 1,004 | 6,883 | 7,887 |
| Frederick | MD | 68,347 | 502 | 2,066 | 2,568 |
| Gaithersburg | MD | 68,635 | 200 | 2,159 | 2,359 |
| Greenbelt | MD | 24,125 | 460 | 2,740 | 3,200 |
| Hagerstown | MD | 40,567 | 569 | 3,111 | 3,680 |
| Hyattsville | MD | 18,666 | 600 | 5,481 | 6,081 |
| Laurel | MD | 26,424 | 413 | 3,826 | 4,239 |
| Salisbury | MD | 33,417 | 889 | 5,072 | 5,961 |
| Takoma Park | MD | 17,721 | 395 | 2,410 | 2,805 |
| Westminster | MD | 18,683 | 417 | 3,543 | 3,961 |
| **Rockville** | **MD** | **67,340** | **135** | **1,564** | **1,699** |
| **Metropolitan (D.C.)** | **MD** | **681,170** | **845** | **4,635** | **5,480** |
| **Maryland** | | **6,202,009** | **428** | **2,166** | **2,594** |
| **United States** | | **327,455,769** | **368** | **2,376** | **2,744** |

## FIGURE 32: Reported Violent and Property Crime Rates, by Year




## FIGURE 33: Reported City and State Crime Rates, by Year



## TABLE 22: Reported Rockville, Maryland, and National Crime Rates, by Year

| Year | Rockville | | | | Maryland | | | | National | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Population | Violent | Property | Total | Population | Violent | Property | Total | Population | Violent | Property | Total |
| 2007 | 60,945 | 235 | 2,494 | 2,729 | 5,788,936 | 623 | 3,330 | 3,953 | 306,799,884 | 442 | 3,045 | 3,487 |
| 2008 | 60,241 | 189 | 2,799 | 2,988 | 5,800,551 | 610 | 3,416 | 4,027 | 309,327,055 | 438 | 3,055 | 3,493 |
| 2009 | 62,381 | 234 | 2,190 | 2,424 | 5,870,524 | 573 | 3,105 | 3,678 | 312,367,926 | 416 | 2,906 | 3,322 |
| 2010 | 64,122 | 172 | 1,917 | 2,088 | 5,949,764 | 531 | 2,913 | 3,444 | 314,170,775 | 393 | 2,833 | 3,225 |
| 2011 | 61,790 | 163 | 2,143 | 2,306 | 6,006,169 | 480 | 2,776 | 3,255 | 317,186,963 | 376 | 2,800 | 3,176 |
| 2012 | 63,937 | 159 | 1,841 | 2,000 | 6,067,471 | 463 | 2,665 | 3,128 | 319,697,368 | 377 | 2,758 | 3,135 |
| 2013 | 63,833 | 146 | 1,645 | 1,791 | 6,114,548 | 444 | 2,528 | 2,972 | 321,947,240 | 362 | 2,627 | 2,989 |
| 2014 | 65,736 | 140 | 1,479 | 1,644 | 6,167,060 | 423 | 2,413 | 2,836 | 324,699,246 | 357 | 2,464 | 2,821 |
| 2015 | 67,093 | 158 | 1,637 | 1,795 | 6,202,009 | 428 | 2,166 | 2,594 | 327,455,769 | 368 | 2,376 | 2,744 |
| 2016 | 67,340 | 135 | 1,564 | 1,699 | 6,016,447 | 472 | 2,285 | 2,757 | 323,127,513 | 386 | 2,451 | 2,837 |

## TABLE 23: Reported Rockville, Maryland, and National Crime Clearance Rates

| Crime | Rockville (2016) | | | Maryland (2015) | | | National (2016) | | |
|---|---|---|---|---|---|---|---|---|---|
| | Crimes | Clearances* | Rate | Crimes | Clearances | Rate | Crimes | Clearances | Rate |
| Murder Manslaughter | 2 | 2 | 100% | 542 | 239 | 44% | 15,566 | 9,246 | 59% |
| Rape | 24 | 16 | 67% | 1,607 | 830 | 52% | 111,241 | 40,603 | 37% |
| Robbery | 36 | 9 | 25% | 9,559 | 2,634 | 28% | 306,172 | 90,627 | 30% |
| Aggravated Assault | 29 | 18 | 62% | 14,828 | 8,229 | 55% | 744,132 | 396,622 | 53% |
| Burglary | 105 | 21 | 20% | 25,144 | 4,104 | 16% | 1,393,570 | 182,558 | 13% |
| Larceny | 899 | 103 | 12% | 96,387 | 21,041 | 22% | 5,211,566 | 1,063,159 | 20% |
| Vehicle Theft | 49 | 11 | 22% | 12,820 | 1,184 | 9% | 714,041 | 94,967 | 13% |

**Note:** *The Rockville cleared crimes are calculated from corresponding rates.