



# Monona Police Department

## Five-Year Strategic Staffing Plan

**Final Report**

**June 2014**

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In July 2013, the Monona Police Department (MPD) contracted with the University of North Texas for the development of a five-year strategic staffing plan for sworn personnel. Various methodologies were employed during the study including interviews with command staff, analysis of existing departmental and city data and reports, assessment of national best practices applicable to MPD, and the development of statistical models to project staffing needs.

This report is structured in five primary sections and provides the reader with data, information, and analysis that lead to recommendations relevant to the strategic staffing plan of the Monona Police Department. The five sections are as follows:

- **Section I: Operations Division Staffing;**
- **Section II: Investigations Division Staffing;**
- **Section III: Command Staff Personnel Staffing;**
- **Section IV: Summary of Staffing Recommendations; and**
- **Section V: List of Recommendations.**

## SECTION I: OPERATIONS DIVISION STAFFING

This section of the report develops a strategic staffing plan for the Monona Police Department (MPD) Operations Division. The Operations Division is comprised of patrol, community relations, and the school crossing guard function. Table 1 illustrates the current staffing within the division.

**Table 1 – Operations Division Staffing**

<b>Position</b>	<b>Classification</b>	<b>Authorized Personnel</b>
Lieutenant	Sworn	1
<b>Patrol Bureau</b>		
Sergeant	Sworn	1
Officer	Sworn	11
<b>Community Relations</b>		
Community Relations Officer	Sworn	1 (open)
<b>Crossing Guard</b>		
School Crossing Guard	Civilian	1 part-time

### **PATROL BUREAU STAFFING**

The Patrol Bureau of the Operations Division is comprised of 11 patrol officers and 1 sergeant, with one lieutenant overseeing the entire division. The staffing needs of each of these positions over the next five years are discussed in this section.

#### **Modeling Patrol Staffing Needs**

The primary issue addressed in this section of the report focuses on the question: How many sworn police officers should be assigned to patrol in the Monona Police Department (MPD) through fiscal year 2018? There are currently 11 authorized patrol officers in MPD.

The methodology employed to answer the above question was the use of the Model for the Allocation of Patrol Personnel (MAPP). MAPP is a validated allocation model created by Dr. Fritsch and has been successfully used in other cities and jurisdictions to accurately project the number of officers required in patrol, utilizing variable service level schemes and performance objectives.<sup>1</sup>

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<sup>1</sup> The original version of MAPP was built and tested by Dr. Fritsch in 2000. Earlier versions of the model were featured in the Executive Issues Seminar Series which was sponsored by the Bill Blackwood Law Enforcement Management Institute of Texas as well as training provided by the Illinois Law Enforcement Training and Standards Board. Most recently, the MAPP was utilized in comprehensive staffing studies for the Allen TX, Denton, TX, DeSoto TX, El Paso TX, Eugene OR, McKinney TX, Midlothian TX, Riley County KS, and Rowlett TX Police Departments.

The MAPP is designed to determine the number of officers that need to be assigned to patrol based on established performance objectives. The model first determines the number of officers needed to answer calls for service and then builds upon that number to ensure that enough officers are assigned to patrol so that performance objectives can be met. There are six performance objectives for patrol used in this model. Each is discussed below.

- **Ability to meet response time goals for Priority 1 calls for service**

It is crucial for MPD officers to be geographically disbursed throughout the community so they are able to respond rapidly to Priority 1 calls. Priority 1 calls involve crimes in-progress and incidents that put citizens in imminent danger where rapid response matters. These incidents are critical, where minutes, and even seconds, can have a major impact on the outcome of the incident. Rapid response to Priority 1 calls for service can increase the probability of arrest of the suspect at the scene of the offense, decrease injuries suffered by the victim, decrease property loss and destruction, and deescalate the situation due to officer presence. It is imperative in order to meet this objective that officers must be immediately sent to the scene once the dispatcher has obtained sufficient information regarding the nature of the call and that officers respond rapidly. The MAPP takes into account the number of officers that need to be assigned to patrol in order to meet response time goals to Priority 1 calls.

- **Ability to meet response time goals for Priority 2 calls for service**

It is also important for officers to respond quickly to Priority 2 calls to ensure the situation does not escalate into a more serious situation. Therefore, the MAPP takes into account the number of officers that need to be assigned to patrol in order to meet response time goals to Priority 2 calls.

- **Ability to meet response time goals for Priority 3 calls for service**

Although these calls are not as critical, it is also important for officers to be able to respond to Priority 3 calls in a reasonable amount of time primarily for citizen satisfaction purposes. Therefore, the MAPP takes into account the number of officers that need to be assigned to patrol in order to meet the department's response time goal for Priority 3 calls.

- **Having an officer available to immediately respond to a Priority 1 call**

MPD must have officers available who can immediately respond to a Priority 1 call for service. If all on-duty officers are busy on other calls for service and activities, then the responses to Priority 1 calls will be delayed. In order to ensure sufficient immediate availability, a performance objective is set in the MAPP for the percentage of Priority 1 calls for which there should be at least

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The web-based MAPP is used by police and sheriff departments throughout the country through an agreement with the University of North Texas. Dr. Fritsch has also authored a book entitled Police Patrol Allocation and Deployment, the only book on the market dedicated to the assessment of police patrol staffing issues.

one officer available to respond. This model then takes that percentage into account in determining the number of officers that need to be assigned to patrol.

- **Visibility of officers**

The public, as they carry out their daily activities, likes to see police officers. They also like to see police officers in their neighborhoods. It is important for the police to be visible to citizens in order to make citizens feel safe and to deter potential criminal activity. Therefore, the MAPP sets visibility objectives for patrol and determines how many officers need to be assigned to patrol to meet these objectives.

- **Officer Self-Initiated and Administrative Time**

The MAPP also takes into account additional performance objectives that are essential to the patrol function. First, officers are expected to spend a certain percentage of their on-duty time performing self-initiated activities such as enforcing traffic violations, stopping suspicious persons, and patrolling locations known for criminal activity. Second, officers spend a certain percentage of their time on administrative activities as well such as activities related to the start and end of each patrol shift as well as meal breaks. The MAPP accounts for these additional activities performed by officers when determining the number of officers that need to be assigned to patrol.

### **Building the Base Model: MAPP Variables**

The initial objective in the modeling process was to build a base MAPP which reflects the current conditions of patrol in MPD. The concept is to build a validated mathematical representation of MPD patrol so future needs can be accurately determined. A total of 36 variables were used in the development of the base MAPP for MPD. In this section, each of the variables is discussed along with the data assessed to arrive at their values.

#### Calls for Service and Service Time Variables

The main concept behind the MAPP is to account for all activities performed by MPD patrol officers and the amount of time it takes to perform these activities. In order to accomplish this, it is necessary to assess call for service numbers in the City of Monona.

#### *Call for Service Data – Primary Unit*

The data assessed for calls for service include dispatched calls only since data on self-initiated and administrative activities are accounted for in a separate part of the MAPP. Dispatched calls for service for 2012 were assessed. The total calls for service, by priority level, are included in Table 2 and were used in the development of the base MAPP.

**Table 2 – Number of Dispatched Calls for Service by Priority Level**

*Primary Unit Only*

	<b>2012</b>	<b>Base MAPP Input Value</b>
<b>Priority 1</b>	832	832
<b>Priority 2</b>	1,322	1,322
<b>Priority 3</b>	2,325	2,325
<b>Total</b>	4,479	4,479

Service time is calculated based on the elapsed time from when an officer is dispatched to the scene to when the officer clears the call. The service time accounts for all activities performed during the call for service including report writing time. The annual average service time by priority level for 2012 was assessed. Table 3 shows the average service time for calls for service for each priority level as entered into the MAPP.

**Table 3 – Average Service Time for Calls for Service by Priority Level**

*Primary Unit Only*

<b>MAPP Variable</b>	<b>Base MAPP Input Value</b>
Average Service Time for Priority 1 Calls	25.8 minutes
Average Service Time for Priority 2 Calls	34.2 minutes
Average Service Time for Priority 3 Calls	20.4 minutes

*Call for Service Data – Back-up Units*

Since the goal of the MAPP is to account for all patrol activity time, it is necessary to account for the time officers spend backing up other patrol units. Data on the annual back-up unit responses by priority level for 2012 were assessed and used in the development of the base MAPP (see Table 4).

**Table 4 – Annual Number of Back-up Unit Responses by Priority Level**

<b>MAPP Variable</b>	<b>Base MAPP Input Value</b>
Annual Number of Back-Up Responses to Priority 1 CFS	609 back-up unit responses
Annual Number of Back-Up Responses to Priority 2 CFS	721 back-up unit responses
Annual Number of Back-Up Responses to Priority 3 CFS	594 back-up unit responses

In addition to the number of back-up unit responses, it is necessary to account for the service time of these back-up unit responses as well. The annual average service time for back-up unit responses by priority level for 2012 was assessed. Table 5 shows the average service time for back-up unit responses for each priority level as entered into the MAPP.

**Table 5 – Average Service Time for Back-up Unit Responses by Priority Level**

<b>MAPP Variable</b>	<b>Base MAPP Input Value</b>
Average Service Time for Priority 1 Calls – Back-up Unit Responses	33.6 minutes
Average Service Time for Priority 2 Calls – Back-up Unit Responses	31.8 minutes
Average Service Time for Priority 3 Calls – Back-up Unit Responses	23.4 minutes

### Self-Initiated and Administrative Time Variables

The self-initiated time an officer spends on-duty is also taken into consideration in the development of the MAPP. This includes time in which an officer can target “hot spots,” perform directed patrol activities, participate in community policing and problem solving activities, stop suspicious individuals, make traffic stops, as well as other activities.

The total number of self-initiated activities and the average service time for these activities in 2012 were used to compute the number of minutes per hour a patrol officer spends on self-initiated activities. The number of minutes a patrol officer spends on self-initiated activities was 7.82 minutes per hour in 2012 or 13% of the shift. The amount of time MPD patrol officers spend on self-initiated activities is quite low in comparison to the experience of the research team with other agencies and with national norms. The self-initiated time value used in the development of the base MAPP is the 2012 figure of 7.82 minutes per hour per officer.

### **Strategic Patrol Staffing Plan: Point to Consider**

The strategic patrol staffing plan that is built in the next section of this report will increase the number of minutes per hour per officer for self-initiated activities to 15 minutes which equates to 25% of each shift. This standard fits with the minimum norms established by the research team in prior staffing studies but is below the long-established national standard of 33% of each shift should be allocated for self-initiated activities.

The MAPP also takes into account the administrative time an officer spends on-duty. Administrative time includes meal breaks, vehicle check/maintenance, briefing/roll call, shift preparation activities as well as end of shift activities, and paperwork that is not completed on calls for service. In the base MAPP, the amount of administrative activity is set at 12.5 minutes per

hour per officer or 20.8% of the shift. This standard fits with the norms established by the research team in prior staffing studies.

Response Time Variables

In order to determine the number of officers needed to meet the response time goals to calls for service, it is necessary to assess three variables. First, the response times for calls for service must be established. Response times for the base MAPP are based on the amount of time from the call being dispatched to an officer to arrival of the officer on the scene. In order to assess response times, the response times by priority level for 2012 were assessed (see Table 6). These response times are consistent with current national best practices and with norms established in prior staffing studies by the research team.

Second, the response time objectives established in the MAPP require that the size of the geographic area covered by patrol be taken into account. The City of Monona is 3.35 square miles. This value was used in the development of the base MAPP to determine the number of officers needed to meet MPD’s response time objectives (see Table 6).

Third, average response speed to emergency and non-emergency calls for service must be determined. Since estimates of average response speeds were not available from MPD, the average response speeds from previous allocation studies conducted by the research team were used. These response speeds were validated in a study supported by the National Highway Traffic Safety Administration. The response speeds may seem low but they take into account the time in which the officer must stop at stop lights (for non-emergency activities), slow down due to traffic conditions, as well as other circumstances which cause the patrol vehicle to slow down. The response time data used in the development of the base MAPP are presented in Table 6.

**Table 6 - Response Time Variables**

<b>MAPP Variable</b>	<b>Base MAPP Input Value</b>
Response Time for Priority 1 Calls	4.22 minutes
Response Time for Priority 2 Calls	5.4 minutes
Response Time for Priority 3 Calls	5.17 minutes
Area	3.35 square miles
Average Response Speed to Emergency Calls for Service	39 mph
Average Response Speed to Non-Emergency Calls for Service	19 mph

Immediate Availability Variables

It is critical for MPD to have enough patrol officers on-duty to be able to immediately respond to Priority 1 calls for service. In determining the number of officers needed to have an officer immediately available to respond to an emergency call for service, two variables are taken into

account. First, the percentage of time an officer should be available to immediately respond to an emergency call for service was determined. Based on norms established in prior staffing assessments, the immediate availability standard was set at 95% which was then used in the base MAPP (see Table 7). For the base MAPP, the percentage of time one patrol officer will be available to immediately respond to a Priority 1 call for service was set at 95% and is certainly a reasonable expectation due to both the rarity and severity of Priority 1 calls.

Second, when determining the number of officers needed to provide an immediate response to a Priority 1 call for service, it is assumed that there are occasions when an officer who is on another call for service or self-initiated or administrative activity can clear that call or activity and respond to the Priority 1 call. When the officer is finished responding to the Priority 1 call for service, then the officer can return to the previous call or activity if necessary. Therefore, a certain percentage of calls for service, self-initiated activities, and administrative activities can be preempted if an officer is needed to respond to a Priority 1 call for service. However, it is argued that some calls for service or self-initiated activities cannot or should not be preempted because of the severity of the call for service, potential escalation, or because of citizen satisfaction reasons. The values established for the immediate availability performance objective are illustrated in Table 7.

**Table 7 - Immediate Availability Variables**

<b>MAPP Variable</b>	<b>Base MAPP Input Value</b>
Percentage of time an officer will be available to immediately respond to a Priority 1 call	95%
Percentage of calls for service that cannot be preempted	55%
Percentage of administrative activities that cannot be preempted	15%
Percentage of self-initiated activities that cannot be preempted	45%

Visibility Variables

In order to determine the number of officers needed to meet the visibility performance objective, it is necessary to assess three variables. First, the visibility objective for two types of roadways must be set: 1) highway and arterial roadways, and 2) collector and residential streets. These objectives are based on the answer to the following questions: 1) how often should a patrol officer pass any given point on a highway or arterial roadway? and 2) how often should a patrol officer pass any given point on a collector or residential street? Basically, if a person was to stand on a street, how often should they see a patrol officer? The visibility objectives were set at 4 hours for highway and arterial roadways and 36 hours for collector and residential streets. This basically means that an officer should pass any given point on a highway or arterial roadway once every 4 hours and any given point on a collector or residential street every 36 hours. It is also important to remember that this performance objective is basically an average. Therefore, there will be some residential roadways in which an officer is seen more frequently than once every 36 hours.

Likewise, there will be some residential roadways in which an officer is seen less frequently than the visibility objective.

Second, the visibility objectives established in the MAPP require that the number of roadway miles be taken into account. Based on the latest data available, the City of Monona has 6.27 miles of highway and arterial roadways and 33.82 miles of collector and residential streets. Third, average patrol speed by roadway type must be determined. Since estimates of average patrol speeds were not available from MPD, the average patrol speeds from previous allocation studies conducted by the project team were used. These patrol speeds were validated in a study supported by the National Highway Traffic Safety Administration. The patrol speeds may seem low but they take into account the time in which the officer must stop at stop signs, slow down to verify or dispel suspicious circumstances, and identify precursors to criminal activity. The visibility objective data used in the development of the MAPP are presented in Table 8.

**Table 8 - Visibility Variables**

<b>MAPP Variable</b>	<b>Base MAPP Input Value</b>
Visibility Objective – Highway and Arterial Roadways	4 hours
Visibility Objective – Collector and Residential Streets	36 hours
Miles of Highway and Arterial Roadways	6.27 miles
Miles of Collector and Residential Streets	33.82 miles
Average Patrol Speed on Highway and Arterial Roadways	24 mph
Average Patrol Speed on Collector and Residential Streets	14 mph

Weights for Performance Objectives

As discussed, the MAPP focuses on several performance objectives. By weighting the performance objectives, MPD command staff can decide which of the performance objectives is most important and thus should hold more weight in determining the number of officers that need to be assigned to patrol. The weights must add up to 100%. For example, if MPD command staff feels that each performance objective is equally important, then a 20% weight is assigned to each performance objective. A 35% weight was assigned to the immediate availability objective, a 25% weight to the response time to Priority 1 calls objective, a 20% weight to the patrol visibility objective, and a weight of 10% was assigned to both the response time goal to Priority 2 and 3 calls objective (see Table 9). The immediate availability and Priority 1 response time objectives are more important to the MPD command staff and thus should hold more weight in the determination of the number of officers that should be assigned to patrol.

**Table 9 – Performance Objective Weights**

<b>MAPP Variable</b>	<b>Base MAPP Input Value</b>
Immediate Availability Objective Weight	35%
Response Time Goal for Priority 1 Calls Objective Weight	25%
Patrol Visibility Objective Weight	20%
Response Time Goal for Priority 2 Calls Objective Weight	10%
Response Time Goal for Priority 3 Calls Objective Weight	10%

Leave Percentage

MPD captures 9 different types of leave (see Table 10). The average number of hours taken by patrol officers for each category of leave in 2012 was assessed. Using the numbers presented in Table 10, the leave percentage was calculated. The leave percentage is 17.62% for patrol officers. The leave percentage was rounded to 18% for entry into the base MAPP. The MPD leave percentage is below the average of 24% established in prior staffing studies conducted by the research team.

**Table 10 – Types of Leave and Hours Taken – 2012\***

*Patrol Officers Only*

<b>Type of Leave</b>	<b>Average Hours Taken</b>
Administrative Leave	3.64
Compensatory Time	66.23
Floating Holiday	32.0
Funeral Leave	0.73
Holidays	3.64
Sick Leave	42.45
Training	51.0
Vacation	140.36
Workers Comp	3.27

\* Includes 2013 vacation estimates

Table 11 illustrates the value for each variable used in the development of the base MAPP which depicts the current state of conditions in MPD patrol. Using the data presented in Table 11, the base MAPP determined that 11 officers should be assigned to the patrol function in MPD. The current patrol staffing level in MPD is 11 officers. Therefore, the base MAPP is an accurate and valid mathematical reflection of the current conditions in MPD patrol.

**Table 11 – MAPP Variables and Determination of Staffing Needs**

<b>Call for Service and Service Time Variables</b>	<b>Base MAPP Current Conditions</b>	<b>Variables Changed for Strategic Staffing Plan</b>
Annual number of Priority 1 CFS ( <i>primary unit responses only</i> )	832	<b>1,115</b>
Annual number of Priority 2 CFS ( <i>primary unit responses only</i> )	1,322	<b>1,772</b>
Annual number of Priority 3 CFS ( <i>primary unit responses only</i> )	2,325	<b>3,116</b>
Total number of back-up unit responses to Priority 1 CFS	609	<b>816</b>
Total number of back-up unit responses to Priority 2 CFS	721	<b>966</b>
Total number of back-up unit responses to Priority 3 CFS	594	<b>796</b>
Average service time ( <i>minutes</i> ) per Priority 1 CFS ( <i>primary unit only</i> )	25.8	
Average service time ( <i>minutes</i> ) per Priority 2 CFS ( <i>primary unit only</i> )	34.2	
Average service time ( <i>minutes</i> ) per Priority 3 CFS ( <i>primary unit only</i> )	20.4	
Average service time ( <i>minutes</i> ) per back-up response to Priority 1 CFS	33.6	
Average service time ( <i>minutes</i> ) per back-up response to Priority 2 CFS	31.8	
Average service time ( <i>minutes</i> ) per back-up response to Priority 3 CFS	23.4	
<b>Self-Initiated and Administrative Time Variables</b>		
<b>Performance objective</b> - Self-initiated time in minutes per hour per officer	7.82	<b>15</b>
<b>Performance objective</b> - Administrative time in minutes per hour per officer	12.5	
<b>Response Time Variables</b>		
<b>Performance objective</b> – Response time for Priority 1 calls ( <i>minutes</i> )	4.22	
<b>Performance objective</b> – Response time for Priority 2 calls ( <i>minutes</i> )	5.4	
<b>Performance objective</b> – Response time for Priority 3 calls ( <i>minutes</i> )	5.17	
Area ( <i>square miles</i> )	3.35	
Average response speed ( <i>mph</i> ) for emergency activities	39	
Average response speed ( <i>mph</i> ) for non-emergency activities	19	
<b>Immediate Availability Variables</b>		
<b>Performance objective</b> - Percentage of time an officer will be available to immediately respond to a Priority 1 call	95	
Percentage of calls for service that cannot be preempted	55	
Percentage of administrative activities that cannot be preempted	15	
Percentage of self-initiated activities that cannot be preempted	45	
<b>Visibility Variables</b>		
<b>Performance objective</b> - Visibility objective ( <i>hours</i> ), highway/arterial roadways	4	
<b>Performance objective</b> - Visibility objective ( <i>hours</i> ), collector/residential roadways	36	
Number of miles, highway/arterial roadways	6.27	
Number of miles, collector/residential roadways	33.82	
Average patrol speed ( <i>mph</i> ), highway/arterial roadways	24	
Average patrol speed ( <i>mph</i> ), collector/residential roadways	14	
<b>Weights for Performance Objectives</b>		
Immediate availability objective weight (percentage)	35	
Response time goal for Priority 1 calls objective weight (percentage)	25	
Patrol visibility objective weight (percentage)	20	
Response time goal for Priority 2 calls objective weight (percentage)	10	
Response time goal for Priority 3 calls objective weight (percentage)	10	
<b>Leave Percentage</b>		
Average Percentage of Time On Leave	18	

## **Building the Strategic Staffing Plan for Patrol**

All values used in the development of the base MAPP fit within the expected norms established by the research team in prior staffing studies with the exception of one variable:

- 1) Self-initiated time in minutes per hour per officer;

The strategic patrol staffing plan that is developed in this section will focus on staffing the patrol function in MPD so improvements on self-initiated time can be made and can become more in line with contemporary staffing standards.

In order to increase the amount of time available to officers to perform self-initiated activities, the following changes were made to the base MAPP (see Table 11).

- 1) Self-initiated time in minutes per hour per officer was increased from the current 7.82 minutes in the base MAPP to 15 minutes (25% of each shift) in the MAPP developed for the strategic staffing plan. This standard fits with the minimum norms established by the research team in prior staffing studies but is below the long-established national standard of 33% of each shift should be allocated for self-initiated activities.

The only other variables that changed from the base MAPP to the MAPP developed for the strategic staffing plan are the projected calls for service, by priority level, over the next five years. With a consistent increase in property crimes experienced by MPD over the past few years, it is projected that calls for service will increase at a rate of 5% annually over the next five years (see Table 12). A 5% annual increase in calls for service is considered a moderate increase. As illustrated in Table 11, the MAPP developed for the strategic staffing plan utilized a 5% annual increase in calls for service and back-up unit responses over the next five years.

**Table 12 – Projected Calls for Service through 2018**

	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
<b>Priority 1 – Primary Unit</b>	832	874	917	963	1,011	1,062	1,115
<b>Priority 2 – Primary Unit</b>	1,322	1,388	1,458	1,530	1,607	1,687	1,772
<b>Priority 3 – Primary Unit</b>	2,325	2,441	2,563	2,691	2,826	2,967	3,116
<b>Priority 1 – Back-Up Units</b>	609	639	671	705	740	777	816
<b>Priority 2 – Back-Up Units</b>	721	757	795	835	876	920	966
<b>Priority 3 – Back-Up Units</b>	594	624	655	688	722	758	796

*All of the other variables in the base MAPP remained the same in the MAPP developed for the strategic staffing plan.*

**Recommendation #1: Based on the results of the MAPP, it is recommended that 17 patrol officers be assigned to patrol by the end of fiscal year 2018.**

**Implementation Timeframe:**      **FY 2014 – Add 1 patrol officer**  
   **FY 2015 – Add 1 patrol officer**  
   **FY 2016 – Add 2 patrol officers**  
   **FY 2017 – Add 1 patrol officer**  
   **FY 2018 – Add 1 patrol officer**

This represents an increase of 6 patrol officers over the current authorized patrol strength of 11; a 54.5% increase. Changes of this magnitude do not occur quickly. Therefore, the strategic patrol staffing plan will accomplish the addition of 6 patrol officers over a five year period.

FY 2014 – Add 1 patrol officer

Based on the results of the MAPP, it is expected that the addition of 1 patrol officer in FY 2014 will have the following impact on the patrol performance objectives targeted by the strategic patrol staffing plan.

- 1) Self-initiated time in minutes per hour per officer will increase from the current 7.82 minutes to 9.26 minutes.
- 2) Calls for service and back-up unit responses will increase by 5%.

FY 2015 – Add 1 patrol officer

Based on the results of the MAPP, it is expected that the addition of 1 patrol officer in FY 2015 (total of 2 additional patrol officers over current authorized patrol strength) will have the following impact on the patrol performance objectives targeted by the strategic patrol staffing plan.

- 1) Self-initiated time in minutes per hour per officer will increase from 9.26 minutes to 10.7 minutes.
- 2) Calls for service and back-up unit responses will increase by 5%.

FY 2016 – Add 2 patrol officers

Based on the results of the MAPP, it is expected that the addition of 2 patrol officers in FY 2016 (total of 4 additional patrol officers over current authorized patrol strength) will have the following impact on the patrol performance objectives targeted by the strategic patrol staffing plan.

- 1) Self-initiated time in minutes per hour per officer will increase from 10.7 minutes to 12.14 minutes.
- 2) Calls for service and back-up unit responses will increase by 5%.

### FY 2017 – Add 1 patrol officer

Based on the results of the MAPP, it is expected that the addition of 1 patrol officer in FY 2017 (total of 5 additional patrol officers over current authorized patrol strength) will have the following impact on the patrol performance objectives targeted by the strategic patrol staffing plan.

- 1) Self-initiated time in minutes per hour per officer will increase from 12.14 minutes to 13.58 minutes.
- 2) Calls for service and back-up unit responses will increase by 5%.

### FY 2018 – Add 1 patrol officer

Based on the results of the MAPP, it is expected that the addition of 1 patrol officer in FY 2018 (total of 6 additional patrol officers over current authorized patrol strength) will have the following impact on the patrol performance objectives targeted by the strategic patrol staffing plan.

- 1) Self-initiated time in minutes per hour per officer will increase from 13.58 minutes to 15 minutes.
- 2) Calls for service and back-up unit responses will increase by 5%.

The implementation of the strategic patrol staffing plan as designed will allow MPD patrol officers to do the following:

- Annually respond to a projected 5% annual increase in dispatched calls for service;
- Respond to Priority 1 calls for service in 4.22 minutes, Priority 2 calls for service in 5.4 minutes, and Priority 3 calls for service in 5.17 minutes;
- Have one officer available to immediately respond to a Priority 1 call for service 95% of the time;
- Provide a sufficient level of police visibility in the community;
- Spend 25% of their shift on self-initiated activities;
- Spend 20.8% of their shift on administrative activities; and
- Maintain the current leave rate for patrol officers.

## **Patrol Supervision**

The Patrol Bureau includes 3 shifts of 3 patrol officers with 2 additional patrol officers working relief shifts. Currently, one patrol sergeant and one lieutenant provide supervision of patrol officers. As patrol officers are added under the strategic patrol staffing plan, additional patrol supervision will be required. Therefore, the following recommendation is offered.

**Recommendation #2: One additional Sergeant (total of 2 patrol sergeants) should be assigned to the Patrol Bureau.**

**Implementation Timeframe: FY 2017 – One Sergeant**

**Additional Hire Required: The promotion of an officer to sergeant will require the hiring of a new officer to fill the vacancy in patrol created by the promotion.**

## **COMMUNITY RELATIONS STAFFING**

MPD has one community relations officer (CRO) position, but the position is currently open. When filled, the CRO is responsible for managing all of MPD community outreach and crime prevention programs. Filling the one CRO position is the most efficient way for MPD to become actively engaged in implementing its community awareness and crime prevention programs. Without a designated CRO, the responsibilities of this position are placed on patrol. With responsibility for answering calls for service, performing self-initiated activities, and other primary responsibilities, the CRO tasks are relegated to secondary status by patrol officers. The assignment of one community relations officer should continue and the staffing level is sufficient for the next five years.

**Recommendation #3: One patrol officer should be assigned as the Community Relations Officer.**

**Implementation Timeframe: FY 2014 – One Community Relations Officer**

**Additional Hire Required: The assignment of one patrol officer as the Community Relations Officer will require the hiring of a new officer to fill the vacancy in patrol created by the assignment.**

## **CROSSING GUARD STAFFING**

The Winnequah School is the only elementary school in the Monona Grove School District within the City of Monona. Therefore, Monona PD has one part-time school crossing guard who is assigned to the Winnequah School. The essential job functions of the school crossing guard include:

- Knowledge of traffic hazards and safety precautions related to crossing guard work;
- Knowledge of methods for promoting safety for children and employees;
- Ability to establish and maintain effective working relationships with children, school officials, and the general public; and,
- Ability to effectively communicate basic traffic and street crossing instructions to drivers and students by giving oral and hand gesture instructions.

Over the next five years, the Monona Grove School District is not expected to build a new elementary school within the city limits of Monona. Therefore, the current staffing level of school crossing guards is sufficient for the next five years.

## SECTION II: INVESTIGATIONS DIVISION STAFFING

This section of the report develops a strategic staffing plan for the Monona Police Department (MPD) Investigations Division. The Investigations Division is comprised of investigations, school liaison, court clerk, and dispatch. Table 13 illustrates the current staffing within the division. The staffing needs of each of these positions over the next five years are discussed in this section.

**Table 13 – Investigations Division Staffing**

Position	Classification	Authorized Personnel
Lieutenant	Sworn	1
<b>Criminal Investigations</b>		
Detective Sergeant	Sworn	1
Detectives	Sworn	2
<b>School Liaison</b>		
School Liaison	Sworn	1
<b>Court Clerk</b>		
Court Clerk	Civilian	1
<b>Dispatch</b>		
Dispatchers (full-time)	Civilian	4
Dispatchers (part-time)	Civilian	3

### CRIMINAL INVESTIGATIONS

Investigative units can be categorized in many ways. One of the categorization means is to divide criminal investigations into reactive and proactive units. Even though each unit may provide both reactive and proactive services, one of the two characterizations is prominent in each unit. The activities of reactive units are primarily determined by incidents that have been reported by a citizen to a patrol officer that has been routed to the criminal investigations supervisor for further review and then assigned to a detective for follow-up investigation. Not all cases can be assigned for follow-up investigation either because they are unlikely to be solved or because staffing levels limit the number of cases that can be assigned to investigators. The workload of reactive units is quantifiable by assessing the number of cases referred to the investigations supervisor for further review and the case assignment practices within the investigative unit. MPD Criminal Investigations is a traditional reactive investigative unit and the 2 generalist investigators and 1 detective sergeant almost exclusively work reactive cases. Proactive units certainly work cases but much of the effort expended in these units is proactive through the development of criminal intelligence to target drugs and high rate offenders. MPD currently does not have a proactive unit or detective.

The analysis performed to determine the staffing needs of an investigative unit differs depending on whether the unit is reactive or proactive. Proactive units, since the activity is less quantifiable, are not good candidates for the modeling process. On the other hand, reactive units, like the one within MPD, fit well within the parameters of the modeling process.

As previously mentioned, many cases are not assigned to investigators because they are either unlikely to be solved or because of staffing considerations assessed by the supervisor. It is common for an equilibrium to be established in reactive investigative units regarding the number of new cases assigned each month to an investigator and the total number of cases on the active caseload of each investigator. A supervisor may not assign certain cases when the equilibrium thresholds informally established in the unit have been reached. Staffing levels can be determined by simply assessing the number of cases that are not currently assigned, that should be, and then determining the number of detectives needed to handle the increased number of cases assigned to detectives. As demonstrated below, this approach was utilized in making the staffing determinations within MPD Criminal Investigations.

For each case, the detective lieutenant reads the initial report completed by the patrol officer and makes a case assignment decision based on the initial report. The lieutenant takes into account several factors in deciding to assign a case or not including, seriousness of the offense, cooperativeness of the victim, witness to the crime (individuals or “electronic witnesses” in the form of video/audio recordings), knowledge of suspect’s name, traceable property, specific method of operation, presence of usable physical evidence, and whether or not the crime can be solved in a timely fashion, among others.

Data were obtained on the number of cases reviewed by the detective lieutenant in 2011 and 2012 (see Table 14). Data were also obtained on the number of cases, by offense, reviewed by the detective lieutenant for possible detective assignment in 2011 and 2012 (see Table 15). In 2012, a total of 917 cases were reviewed by the detective lieutenant, with 234 cases being assigned to detectives for a follow-up investigation. The remaining unassigned cases in 2012 (683) were suspended or inactivated and no investigative effort was expended on them by detectives. Overall, 25.5% of the cases reviewed by the detective lieutenant were assigned to detectives in 2012. The numbers and percentages are similar for 2011 as well which demonstrates that there have not been any significant changes in assignment practices in the past few years.

**Table 14 – Cases Assigned/Not Assigned – Criminal Investigations**

	2011		2012	
	Number of Cases	Percentage	Number of Cases	Percentage
Assigned	200	24.3%	234	25.5%
Not Assigned	622	75.7%	683	74.5%
<b>Total</b>	822		917	

In assessing current and future staffing levels, the MPD command staff were asked if they thought that cases were not being assigned to investigators for follow-up investigations due to staffing shortages and the desire to maintain reasonable caseloads. The command staff agreed that the cases that can be solved with a reasonable amount of investigative effort are being assigned to investigators which indicates to the research team that there are not any current staffing shortages in investigations.

In addition, the average number of new cases assigned per detective was calculated using the data presented in Table 14. The number of new cases assigned certainly varies by month and type of offense, but the average number of new cases assigned was about 6 new cases per month per investigator from 2011-2012. Since the detective sergeant actively investigates cases, he was included in the calculations. Considering the number of new cases assigned to each investigator and the types of cases investigated, there is no indication that investigations is understaffed. In fact, the number of new cases assigned each month, considering the type of cases assigned as well, is moderately low based on the experience of the research team in conducting investigation staffing assessments for other law enforcement agencies.

**Table 15 – Cases Reviewed – Criminal Investigations**

<b>Offense</b>	<b>2011</b>	<b>2012</b>
Arson	1	0
Battery	22	6
Burglary	24	26
Child Abuse	2	8
Death Investigation	15	9
Disturbance	174	45
Drug Investigation/Overdose	61	41
Fraud/Forgery	65	77
Juvenile Complaints	35	43
Property Damage	86	94
Robbery	4	1
Sex Offense	4	13
Stolen Vehicle	5	6
Theft/Retail Theft	265	521
Threats/Harassment	49	20
Other	10	7
<b>Total</b>	<b>822</b>	<b>917</b>

### **SCHOOL LIAISON**

MPD has 1 officer assigned as a School Liaison. The School Liaison provides service to all schools in the Monona Grove School District including 1 high school, 1 charter school, 1 junior high, and 3 elementary schools even though all of the schools are not in the City of Monona. It is commonly recommended among the SRO community that 1 SRO should be assigned to each high school

(regardless of size) and 1 SRO to every 2 middle schools. Although the original source of these recommendations is unknown, it is commonly discussed among the SRO community as the staffing standards to follow. If these standards are applied to MPD, 1.5 officers should be assigned as School Liaison; one to the high school and one-half to the one junior high. In addition, with the recent tragedy involving the Sandy Hook Elementary School shooting, the School Liaison is required to provide more services to the elementary schools than he has in the past. Therefore, an argument can be made for the addition of one more School Liaison to specifically work with the junior high and elementary schools. However, the addition of patrol officers is a more pressing need in this strategic staffing plan, so it is recommended that the number of school liaisons should remain at its current level for the next five years.

### **COURT CLERK**

Monona PD has one full-time court clerk who provides services to the Monona Municipal Court, Monona Juvenile Court, Dane County Criminal Court, Dane County Juvenile Court, and Dane County Traffic Court. The essential job functions of the court clerk varies depending on the court as listed below. The court clerk duties for the Monona Municipal Court and Monona Juvenile Court include:

- Prepare dockets for court;
- Prepare miscellaneous paperwork for court, i.e. OWI assessments, appeals, etc.;
- Attend Municipal court as needed;
- Deposit payments after court;
- Enter dispositions;
- Send out default letters, trial notices, indigency hearing notices, etc.;
- Type up warrants and summons;
- Complete driver's license suspensions;
- Arrange for interpreter at court, if needed;
- Complete monthly financial report upon request;
- Complete quarterly caseload statistics report upon request;
- Type trial transcripts for appeals, if needed;
- Miscellaneous duties as requested by the Judge; and,
- Refer all past due accounts to the collection agency or enter in Tax Intercept.

The court clerk duties for the Dane County Criminal Court, Dane County Juvenile Court, and Dane County Traffic Court include:

- Assist in sending adult and juvenile intakes to the District Attorney's Office;
- Take referrals to Juvenile Court;
- Sign complaints and file with the Clerk of Court's Office;

- Sign juvenile petitions;
- Obtain Judge's signature on warrants and probable cause affidavits;
- Take signed warrants to the Dane County Sheriff's Department and file copies with the Clerk of Court's Office;
- Take signed summons to the Dane County Sheriff's Department; and,
- Keep log of all cases referred to the District Attorney's Office.

Additional duties of the court clerk include:

- Take payments on citations, bike licenses, towing, copies, etc. as needed;
- Retrieve mail and sort;
- Complete CIB Security Awareness training biennially;
- File reports, citations, etc. for court purposes; and,
- Miscellaneous duties for the Chief and officers, i.e. sending out certified letters, ordering citations and supplies, etc.

Based on an assessment of the court clerk responsibilities and the projected increase in workload due to the patrol staffing increases recommended in this report, no staffing additions are needed over the next five years.

## **DISPATCH**

The following personnel are authorized in MPD dispatch:

- 4 Full-Time Dispatchers; and,
- 3 Part-Time Dispatchers.

MPD dispatch is staffed 24 hours a day, 365 days a year with one dispatcher. The part-time dispatchers work every Saturday and Sunday from 7AM-3PM, every third Friday 7AM-3PM and all other times when dispatchers request time off.

## **Modeling the Communications Function – Fixed Positions**

Staffing models were built to determine the staffing needs within MPD dispatch.<sup>2</sup> There are two different types of positions within a communications division. First, there are fixed-positions that must be covered regardless of call volume or level of activity. These positions are the consoles/radio channels that must be monitored 24 hours a day, 365 days a year regardless of call volume. Second, there are activity-based positions that are based on call volume and activity level. These positions are typically staffed based upon the volume of 911 calls coming into the dispatch center by day of week and time of day. Since MPD does not separate call taking and dispatch

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<sup>2</sup> The staffing models expand upon the models built by the University of Denver Research Institute for APCO's (Association of Public-Safety Communications Officials) Project RETAINS (Responsive Efforts to Address Integral Needs in Staffing) in 2005.

responsibilities nor were data available on call volume by time of day and day of week, the modeling process focused exclusively on staffing the fixed-position within dispatch.

MPD dispatch has 1 fixed position that needs to be staffed 24 hours per day, 365 days per year. The model built to determine the number of line dispatchers needed to staff the 1 fixed position within MPD dispatch took into account the variables depicted in Table 16. When building these models, the research team typically takes into account administrative time in minutes per hour per dispatcher to account for a meal and other breaks. Since there is only 1 fixed position in MPD dispatch, administrative time was not factored into the fixed position communications model.

As with MAPP, previously discussed in this report, it is critical to account for the leave rate which includes vacation, sick leave, and other forms of leave. The MPD dispatch leave rate from 2010-2013 was calculated. The leave rate over the 4 years ranged from a low of 6.77% in 2010 to a high of 8.85% in 2013. The leave rate is significantly less than expected based on the experience of the research team in completing similar assessments. On average, the dispatch leave rate from prior staffing assessments is 14%. An assessment of the leave data demonstrates that the dispatchers are not using their allotted vacation and holiday leave which can account for the lower than expected leave rate. The leave rate in the model is set at 8.85% which is both the 2013 value as well as the highest leave rate of the 4 years assessed. The mathematical calculations completed on these variables are not presented in the report to maintain the readability of the report.

**Table 16 – Variables Utilized in Fixed Position MPD Dispatch Model**

<b>Communications Model Variables – Fixed Positions</b>	<b>Values</b>
Total number of fixed positions that need to be covered	1 position
Average work week	40 hours
Average percentage time on leave	8.85%
<b>Number of Dispatchers Needed</b>	<b>4.61</b>

The following recommendation is offered.

**Recommendation #4: Add one full-time dispatcher**

**Implementation Timeframe: FY 2016 – 1 FTE dispatcher**

Even though the part-time dispatchers are able to cover some of the shifts to ensure dispatch staffing consistency, it is recommended that one additional full-time dispatcher should be added. This may impact the number of hours worked by the part-time dispatchers, but as patrol staffing levels and calls for service increase over the next five years, it is appropriate to plan for a full-time permanent position to be added to dispatch. This will allow the part-time dispatchers to continue

to fill-in as needed and provide the valuable service they currently provide to MPD. The addition of one full-time position will also allow the MPD to staff dispatch with one fixed position 24 hours per day, 7 days per week with full-time dispatchers without relying on overtime or dispatcher coverage by the communications supervisor (i.e., lieutenant).

### **SECTION III: COMMAND STAFF PERSONNEL STAFFING**

While there are a number of estimates relating to the ratio of command staff personnel to sworn police officers, these numbers are highly dependent on organizational variables that are unique to each city and police department. For instance, size and structure may dictate needs for command personnel that vary widely from large to small departments and for departments that have large versus small geographic jurisdictions. In addition, the style of policing (more traditional versus community and intelligence-led) also plays an important role in determining needs for command personnel. More progressive departments with community and intelligence-led policing strategies generally require less supervisory and command personnel. Then too, the individual discretion of the chief executive is a critical factor in determining command staff personnel ratios to sworn officers within any department.

The principle of hierarchy requirement that each lower level of organization be supervised by a higher level results not only in the use of multiple spans of management (control) but also in different grades of authority that increase at each successively higher level of the organization. This authority flows downward in the organization as a formal grant of power from the chief of police to those selected for leadership positions. These different grades of authority produce the chain of command.

In the Monona Police Department, the organizational chart reflects a relatively simple line structure. It is the oldest, simplest, and clearest form of organizational design. Authority flows from the top to the bottom of the organization in a clear and unbroken line, creating a set of superior-subordinate relationships and narrow spans of management and control. The design is traditional, limited and tall in nature. There is one chief of police and two lieutenants commanding a police department composed of a total of 17 sworn individuals and 5 full-time and 4 part-time civilians. The command staff personnel staffing level is sufficient for the next five years.

## SECTION IV: SUMMARY OF STAFFING RECOMMENDATIONS

The staffing recommendations made throughout this report, by fiscal year, are included in Table 16.

**Table 17 – Summary of Staffing Recommendations by Fiscal Year**

Positions – FY 2014		Number of Positions
<b>Patrol Bureau</b>		
Patrol Officer	Sworn	1
Community Relations Officer*	Sworn	1
<b>Total New Positions</b>		<b>2</b>
Positions – FY 2015		Number of Positions
<b>Patrol Bureau</b>		
Patrol Officer	Sworn	1
<b>Total New Positions</b>		<b>1</b>
Positions – FY 2016		Number of Positions
<b>Patrol Bureau</b>		
Patrol Officer	Sworn	2
<b>Investigations Division</b>		
Dispatcher	Civilian	1
<b>Total New Positions</b>		<b>3</b>
Positions – FY 2017		Number of Positions
<b>Patrol Bureau</b>		
Patrol Officer	Sworn	1
Patrol Sergeant**	Sworn	1
<b>Total New Positions</b>		<b>2</b>
Positions – FY 2018		Number of Positions
<b>Patrol Bureau</b>		
Patrol Officer	Sworn	1
<b>Total New Positions</b>		<b>1</b>

\* The assignment of one patrol officer as the Community Relations Officer will require the hiring of a new officer to fill the vacancy in patrol created by the assignment.

\*\* The promotion of an officer to sergeant will require the hiring of a new officer to fill the vacancy in patrol created by the promotion.

## SECTION V: LIST OF RECOMMENDATIONS

**Recommendation #1:** Based on the results of the MAPP, it is recommended that 17 patrol officers be assigned to patrol by the end of fiscal year 2018.

Implementation Timeframe: FY 2014 – Add 1 patrol officer  
FY 2015 – Add 1 patrol officer  
FY 2016 – Add 2 patrol officers  
FY 2017 – Add 1 patrol officer  
FY 2018 – Add 1 patrol officer

**Recommendation #2:** One additional Sergeant (total of 2 patrol sergeants) should be assigned to the Patrol Bureau.

Implementation Timeframe: FY 2017 – One Sergeant

Additional Hire Required: The promotion of an officer to sergeant will require the hiring of a new officer to fill the vacancy in patrol created by the promotion.

**Recommendation #3:** One patrol officer should be assigned as the Community Relations Officer.

Implementation Timeframe: FY 2014 – One Community Relations Officer

Additional Hire Required: The assignment of one patrol officer as the Community Relations Officer will require the hiring of a new officer to fill the vacancy in patrol created by the assignment.

**Recommendation #4:** Add one full-time dispatcher

Implementation Timeframe: FY 2016 – 1 FTE dispatcher