

**Monroe County, Indiana
Central Emergency Dispatch**

Organizational Structure Review

Report

February 2020



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February 21, 2020

Angie Purdie
Commissioners' Administrator
Monroe County
100 W. Kirkwood Avenue
Bloomington, IN 47404

Michael Rouker
City Attorney
City of Bloomington
401 N. Morton Street
Bloomington, IN 47404

Dear Ms. Purdie and Mr. Rouker:

We are pleased to present this project report regarding the Central Emergency Dispatch Center. This report includes observations and recommendations intended to improve the efficiency and effectiveness of Dispatch Center functions and ensure that the Dispatch Center is appropriately staffed to meet the demand for public safety calls and provide excellent service to partner agencies.

Recommendations included in this report are informed by feedback and input from Dispatch Center staff, as well as representatives from the Bloomington Police Department and Fire Department, Monroe County Sheriff's Office, fire districts within the County, Indiana University Health Emergency Management Services (EMS), and the Town of Ellettsville. Monroe County and the City of Bloomington are fortunate to have dedicated, passionate employees who provide quality emergency communications support. We are confident that the recommendations included in this report will improve the Dispatch Center's ability to provide quality call-taking and dispatching services to the public and the first responders in all their partner agencies.

We appreciate the opportunity to work with the City and the County on this project.

Sincerely,

Michelle Ferguson
Organizational Assessment Practice Leader

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Executive Summary

The Monroe County and City of Bloomington Central Emergency Dispatch Center (Dispatch Center) is tasked with providing emergency call-taking and dispatching services to 13 agencies in 11 separate jurisdictions. Each of these agencies has a particular set of expectations and processes that are unique to their policing, fire suppression, and EMS service-delivery philosophies.

These agencies benefit from the economies of scale offered through the regional approach to dispatching and interconnectedness that such an operation provides. However, as with any regional service, a natural tension exists. To realize these economies of scale, a certain degree of standardization is required within call-taking and dispatching protocols. This standardization limits the degree of customization available to partner agencies. However, despite this reality, it is critical for regional dispatch center managers to proactively work with customer agencies to identify service level issues and address them promptly.

Monroe County Dispatch Center customers have expressed frustration with perceived limitations in the Dispatch Center’s capacity to evaluate, resolve, and communicate process improvement changes within the Dispatch Center. The Novak Consulting Group’s assessment of Dispatch Center operations indicates that this is, in part, due to staffing limitations. The vacancy rate within the Dispatch Center has exceeded 30% over the past four years, and several key positions, including the Telecommunication’s Manager, have remained vacant for several months. In addition, workload analysis indicates that additional budgeted positions are required to meet best practices staffing guidelines and effectively respond to workload demands. Increasing budgeted staffing and, just as importantly, working to quickly fill existing vacancies, will go a long way to providing the capacity needed to focus on process improvements in the Dispatch Center.

However, there is also a need to create more formal service level expectations with customers and to develop a consistent and transparent process of tracking and communicating performance as well as resolving customer issues. To that end, this assessment offers several recommendations designed to improve service quality and strengthen the governance structure of the Dispatch Center. The following table summarizes the recommendations included in this report.

Table 1: List of Recommendations

Number	Recommendation
Call-Taker and Dispatcher Staffing	
1	Adopt a minimum staffing target of six Telecommunicators per shift under a 12-hour shift schedule alternative.
2	Adopt a staffing target of one Supervisor per shift team under a 12-hour shift schedule alternative.
Training and Quality Assurance	
3	Create a proactive Training and Quality Assurance program.
Dispatch Protocols and Service Level Expectations	
4	Develop revised dispatch protocols for customer agencies.
5	Develop service level agreements with each customer agency.
6	Incorporate cross-training into Telecommunicator and first responder training.
Organization Structure	
7	Convert the Training Coordinator into an Assistant Telecommunications Manager.

Number	Recommendation
8	Reassign the CAD-RMS Data Coordinator position to report to the Telecommunications Manager.
Governance	
9	Strengthen the role of the Dispatch Policy Board and Oversight Board.

The following table identifies staffing-related recommendations and associated costs discussed in this report. These figures include estimated amounts for salary and benefits based upon the City of Bloomington pay bands and benefits estimates.

Table 2: Recommended Staffing Changes with Cost Impacts

Position	Recommendation	Estimated Cost Impact
Telecommunicators (New 7.5 FTEs)	Increase Telecommunicator staffing to support a 12-hour shift schedule and a minimum of six Telecommunicators per shift.	\$704,410
Supervisors (Eliminate 2.0 FTEs)	Adopt a minimum of one Supervisor per shift team, requiring four FTEs. Eliminate two budgeted but vacant Telecommunicator Supervisor positions.	(\$154,260)
Assistant Telecommunications Manager (Reclassify)	Create a new Assistant Telecommunications Manager position by reclassifying the Training Coordinator position. No cost impact from this change due to the same pay band for the two positions.	\$0
CAD Analyst (Restructure)	Restructure the CAD Analyst position to expand its responsibilities and support both the Training and Quality Assurance program as well as the performance of The Dispatch Center against service level agreements.	\$0
Total Estimated Costs		\$550,150

Background and Methodology

In June 2019, Monroe County and the City of Bloomington engaged The Novak Consulting Group to conduct an organizational assessment of the Dispatch Center. The purpose of this engagement was to examine the operations and governance of the Dispatch Center, describe the current state of service delivery, and identify opportunities for improvement. The assessment also examined the service provided to the public agencies that the Dispatch Center serves, examining the appropriate staffing and operational changes needed to meet the expectations of all agencies in Monroe County.

To accomplish this, The Novak Consulting Group conducted eight individual interviews with leadership from Monroe County, the City of Bloomington, and Indiana University (IU) Health, which provides EMS services. In addition, six focus groups were conducted with first responders from various public safety agencies as well as Telecommunicators and Supervisors in the Dispatch Center.

In addition to staff engagement efforts, Monroe County and the City of Bloomington supplied numerous documents that provided insight regarding the Dispatch Center's structure, operations, practices, and workload. The Novak Consulting Group reviewed and analyzed this information along with publicly available documents such as annual budgets. External resources, such as industry publications and best practices from the Association for Public-Safety Communications Officials (APCO) and the National Emergency Number Association (NEMA), were also examined. Additionally, The Novak Consulting Group assessed the staffing level within the Dispatch Center using a statistical approach known as the Erlang-C queuing model. Erlang formulas use statistics to address the randomness of call times and clarify the number of call-taking positions needed each hour of a day.

The interviews, fact-gathering, and statistical analysis were synthesized to inform the assessment and recommendations included in this report.

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About the Monroe County Dispatch Center

The Monroe County Central Emergency Dispatch Center serves as the joint Public Safety Answering Point (PSAP) for all public safety agencies within Monroe County. The Dispatch Center is operated by the City of Bloomington and is organized as a division within the City's Police Department; however, operations are governed by an interlocal agreement. The interlocal agreement defines a Policy Board and an Oversight Board to oversee operations.

The Policy Board is made up of five members. Two members are appointed by the County, with one being a Fire Chief who serves in Monroe County. Three members are appointed by the City's Mayor, one of which must be a law enforcement representative from Indiana University. The Policy Board has the authority to give direction to the Oversight Board, set policy, manage the Dispatch Center budget, and establish and define levels of service. The Oversight Board has two members: the Monroe County Sheriff and the City's Chief of Police.

The Oversight Board has the power to administer the rules and policies adopted by the Policy Board, make recommendations, and hire the Telecommunications Manager. The Oversight Board exercises general oversight of the operations of the Dispatch Center. However, the City's Chief of Police manages the day-to-day operations and can direct Dispatch employees. The Oversight Board is tasked with day-to-day issue identification and resolution. The Policy Board is tasked with resolving issues that cannot be addressed by the Oversight Board, formulating and proposing budgets to the City and County governing boards, and defining service level standards, policies, and operating guidelines.

The cost of the Dispatch Center has been evenly shared between the City and County and is primarily funded through a Countywide local income tax dedicated to public safety. Formally the Telecommunications Manager reports to the Police Chief and County Sheriff through the Oversight Board, but day-to-operations are delegated to the Telecommunications Manager under the authority and direction of a Captain in the Bloomington Police Department, and all Dispatch Center personnel are City employees.

As the County PSAP, the Dispatch Center fields all 911 calls in the County and provides dispatching for all fire, EMS, and law enforcement calls within the County except for the IU campus, which dispatches its own public safety calls. The Dispatch Center fields over 110,000 calls for service annually and staffs four main dispatch/radio channels 24 hours per day. These include dedicated channels for Bloomington Police, City and County Fire, County Law Enforcement, and EMS services provided by IU Health. There are 21 additional operations channels that are used intermittently and monitored by the Dispatch Center. These channels are used for specific incidents or tactical events that benefit from the use of dedicated radio channels to manage communications for public safety personnel. Currently, Telecommunicators are expected to take calls for service and monitor dispatch channels simultaneously.

The following summarizes the major responsibilities of Dispatch Center staff:

- **Call-taking** – Dispatch Center staff are responsible for fielding both emergency and non-emergency calls for service from the public. In this role, staff are responsible for processing incoming calls with the intent of analyzing, prioritizing, and disseminating information to aid in the safety of the public and responders.

- **Emergency Medical Dispatch (EMD) Call-taking** – Dispatch Center staff field emergency medical calls and are responsible for dispatching IU Health, which provides EMS in Monroe County. Dispatch Center staff remain on the line with the caller if Emergency Medical Dispatch (EMD) services are required. EMD is a systematic program of handling medical calls. Trained Telecommunicators, using locally approved EMD Guidecards, quickly and properly determine the nature and priority of the call, dispatch the appropriate response, then give the caller instructions to help treat the patient until the responding EMS unit arrives.
- **Police and Fire Service Dispatching** – After fielding and assessing calls for service, Dispatch Center staff dispatch calls to law enforcement and fire personnel. Dispatch Center staff maintain radio contact with public safety personnel through the duration of each incident/call. For police service calls, Telecommunicators provide support to police officers by running license plates, checking for stolen vehicles, and completing warrant checks on behalf of officers.

Budgeted staffing for the Dispatch Center is 33.5 full-time equivalent (FTE) positions, including 25.5 Telecommunicators, six Supervisors, a Training Manager, and the Telecommunications Manager. The following figure summarizes the organizational structure of the Dispatch Center.

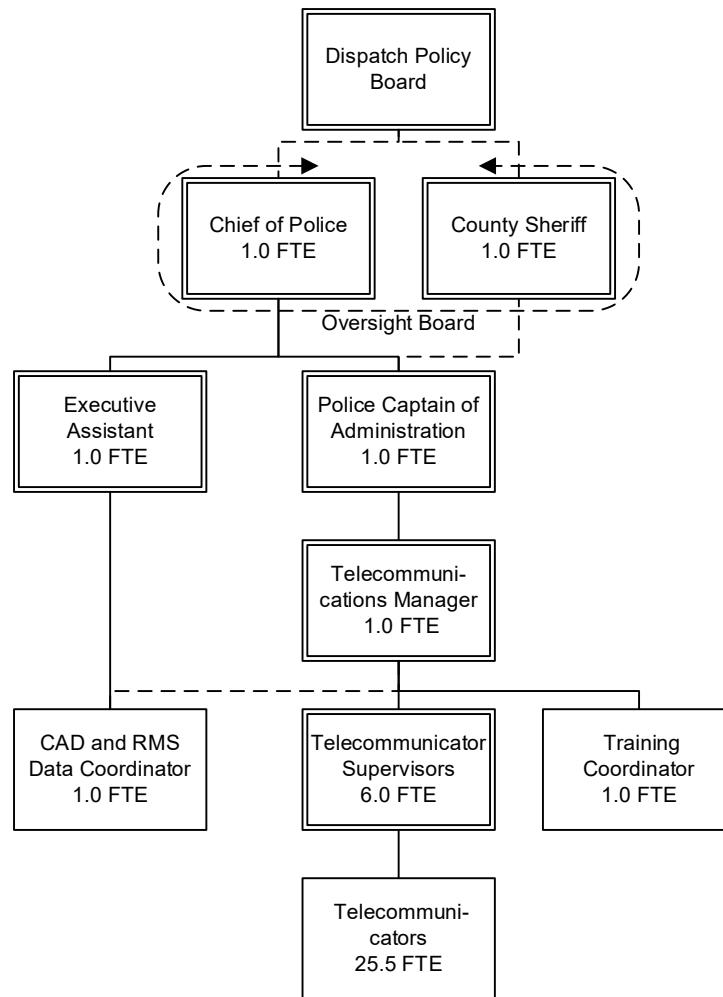


Figure 1: Current Dispatch Center Organizational Structure, FY 2020

The Chief of Police assigned the Captain of Administration to oversee the Telecommunications Manager. The Captain served as the Acting Telecommunications Manager after the position became vacant in early 2018 and until the position was recently filled. The Telecommunications Supervisors and Training Coordinator report directly to the Telecommunications Manager. Notably, the position dedicated for maintenance and upkeep of the Computer Aided Dispatch (CAD) software formally reports to the Police Chief's Executive Assistant; however, in practice, that position takes direction from the Telecommunications Manager, and their place of work is at the Dispatch Center.

Currently, the Dispatch Center operates under an 8-hour shift schedule, and the minimum staffing level on a shift is four Telecommunicators. Those Telecommunicators are assigned to four dedicated dispatch channels, including City Police, City and County Fire, County Law Enforcement, and EMS. Staff assigned to those channels during their shift are expected to dispatch all calls for their assigned agencies and take calls for service.

Core Services Matrix

The following table provides an overview of core services currently provided by the Dispatch Center. This list is not intended to be all-inclusive; rather, it is meant to illustrate significant activities performed by the Dispatch Center staff across their functions.

Table 3: Dispatch Center Core Services

Function	Program Area	Activities
Administration	Budget Management	<ul style="list-style-type: none"> Develop annual Dispatch Center budget. Monitor budget expenditures and adjust as needed.
	CAD System Maintenance	<ul style="list-style-type: none"> Implement updates and patches to the CAD software system. Maintain and update hardware associated with using the CAD system for Telecommunicators. Connect customer agencies to the CAD system database when appropriate. Provide CAD reports to customer agencies as requested
	Policy Board Management	<ul style="list-style-type: none"> Attend all Policy Board meetings. Provide updates to the Policy Board. Research and address concerns from Policy Board members.
	Call Protocol Administration	<ul style="list-style-type: none"> Routinely assess and update call protocols. Collect feedback on the call protocols from customer agencies. Implement updates to call protocols and train Telecommunicators on new processes. Evaluate the performance of Telecommunicators against established protocols.
	Customer Agency Relationship Management	<ul style="list-style-type: none"> Regularly meet with the 13 public safety agencies served by The Dispatch Center.

Function	Program Area	Activities
		<ul style="list-style-type: none"> Investigate complaints or concerns raised by customer agencies; provide resolution to those agencies and what has been done to address them. Provide performance data from the CAD system.
Dispatch Center Operations	Emergency Call-Taking	<ul style="list-style-type: none"> Field emergency calls from the public and collect the necessary caller and incident information to transmit to first responders Provide EMD services if warranted and provide medical care instructions to the caller to help treat the patient until the responding EMS unit arrives.
	Emergency Dispatch	<ul style="list-style-type: none"> Dispatch appropriate the law enforcement agency based on call type, priority, and protocols. Monitor radio traffic and respond to requests for information from first responders Provide updates and check-ins to officers in the field during the duration of a call Answer questions and requests from officers in the field as they come in

Staffing

The following table summarizes the changes in each position type since FY2017 when the City absorbed Monroe County dispatch staff into the Unified Dispatch Center. In 2018, the Dispatch Center added six Telecommunicator positions, and in the following year, three Supervisor positions were added. Though the budgeted FTE count has increased since 2017, there has been turnover within the department, and several positions have remained vacant. Since 2017, the vacancy rate in the Dispatch Center has ranged between 16.3% and 36.3% of positions budgeted on January 1 of each year. At the time of this study, nine budgeted Telecommunicator positions were vacant.

Table 4: Dispatch Center Staffing, FY2017 through FY2020

Authorized Positions	FY2017	FY2018	FY2019	FY2020
Telecommunicator	19.5	25.5	25.5	25.5
Supervisor	3	3	6	6
Training Coordinator	1	1	1	1
Manager	1	1	1	1
Total	24.5	30.5	33.5	33.5

Budget

The Dispatch Center budget is a component of the City of Bloomington Police Department but has dedicated revenue sources through the interlocal agreement with Monroe County and the Local Income Tax (LIT) for Public Safety Answering Points. The Dispatch Center budget has increased by \$1.8 million since 2017. This is largely attributable to increases in personnel costs associated with position increases and overtime, as well as increases in capital expenses. The following table summarizes the Dispatch Center’s historical budgets from FY2017 through FY2020.

Table 5: Dispatch Center Expenses, FY2017 through FY2020

Expense Category	FY2017 Actual	FY2018 Actual	FY2019 Budget	FY2020 Budget
Personnel Services	\$1,709,493	\$1,904,749	\$2,594,726	\$2,574,975
Supplies	\$4,391	\$35,824	\$59,950	\$37,700
Other Services & Charges	\$52,051	\$69,967	\$619,000	\$715,750
Capital Outlays	\$0	\$396,053	\$895,000	\$300,000
Total	\$1,765,935	\$2,406,593	\$4,168,676	\$3,628,425

The following table summarizes the major revenue sources for the Dispatch Center. The primary source is the LIT, which makes up 62% of the Dispatch Center's funding in FY2020. The remaining revenue comes from Monroe County through the interlocal agreement establishing the Dispatch Center.

Table 6: Dispatch Center Revenues, FY2017 through FY2020

Revenue Category	FY2017 Actual	FY2018 Actual	FY2019 Budget	FY2020 Budget
Interlocal Agreement	\$0	\$277,635	\$1,479,635	\$1,365,188
PSAP LIT	\$1,819,123	\$2,918,158	\$2,689,041	\$2,263,237
Refunds	\$0	\$150	\$0	\$0
Total	\$1,819,123	\$3,195,943	\$4,168,676	\$3,628,425

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Analysis and Recommendations

The Dispatch Center receives all emergency calls for service in Monroe County and serves 13 public safety agencies representing 11 different organizations. The services provided by the Dispatch Center are a critical component of community and first responder safety. This review of dispatch operations indicates that employees are dedicated to providing high-quality services to the public and police, fire, and EMS personnel; however, the Dispatch Center is understaffed and relies heavily on overtime to meet minimum shift staffing goals. Further, minimum staffing targets are insufficient to be able to effectively manage emergency call volume and dispatch workload. These constraints have, in part, led to service level concerns from participating agencies.

In addition to staffing constraints, there are opportunities to provide enhanced training and quality control programs within dispatch operations. It is inherently challenging to provide efficient and consistent services to multiple jurisdictions. This challenge must be met with an intentional and proactive effort to provide consistent, quality service. Further, the governance structure must be effectively leveraged to quickly identify service-level challenges and execute a plan to resolve issues.

The following recommendations serve to address these issues and are organized into five key areas: 1) Call-taker and Dispatcher Staffing; 2) Training and Quality Assurance; 3) Dispatch Protocols and Service Level Expectations; 4) Organization Structure; 5) Governance.

Call-Taker and Dispatcher Staffing

The process of determining the staffing and scheduling pattern for the Dispatch Center involves four analytical steps. The first is to look at the calls for service volume to determine the workload profile of the Dispatch Center for different hours of the day and days of the week. Based on that workload profile, the second step is to apply industry staffing standards to determine the number of staff needed to meet demand. Erlang formulas use a statistical solution that addresses the randomness of call arrival times and clarifies the number of call-taking personnel that must be available each hour of the day, based on historical call patterns, to consistently meet the call-taking service standards relating to hold time and duration before calls are answered. The Novak Consulting Group applies the Erlang queuing method, which defines how many call-takers are needed to answer 90% of calls within 20 seconds. The third step is to assess other staffing issues that deserve attention. For example, it is important to consider if shifts are adequately staffed to provide time for necessary training, breaks, and leave usage. Because of the stressful nature of emergency communications work, it is also important to ensure that staffing is adequate to allow for a workload that avoids "burnout" through the excessive use of overtime. The fourth step is to assess which shift scheduling options would provide the most efficient and effective deployment approach for the Dispatch Center.

The Novak Consulting Group applied this approach to the Dispatch Center, and the analysis indicates a clear need to hire additional Telecommunicator positions. There are also operational changes that should be made to improve the staffing levels in the Dispatch Center.

Recommendation 1: Adopt a minimum staffing target of six Telecommunicators per shift under a 12-hour shift schedule alternative.

The Dispatch Center serves three primary functions: 1) to field emergency and non-emergency calls for law enforcement and fire; 2) to field emergency calls for EMS and stay on the line with the caller for EMD

services; and 3) to dispatch calls for service to law enforcement officers, firefighters, and ambulances in the field. The Dispatch Center performs other functions, but call-taking and dispatch are the primary workload drivers for Telecommunicators.

The Dispatch Center has 25.5 authorized Telecommunicator positions. Telecommunicators are currently expected to both take calls for service and dispatch first responders simultaneously based on their assigned station in the Dispatch Center. The current daily minimum staffing in the Dispatch Center is set at four FTEs. These positions are tasked with staffing four primary dispatch channels: City Police; City 9-1-1 Call-taking and City & County Fire; County Law Enforcement; and County 9-1-1 Call-taking and EMS channel monitoring. Those Telecommunicators who are responsible for staffing the Fire and EMS dispatch channel also serve as the Dispatch Center's emergency call-takers.

The Dispatch Center currently operates under an 8-hour shift schedule with four days on and two days off. However, Telecommunicators regularly work overtime, and Supervisors regularly work a dispatch channel during their shift to cover the staffing minimum needed on a shift. Telecommunicators routinely work 12-hour shifts and are often called upon on their days off to staff additional shifts.

When evaluating call-taking and dispatch functions, it is important to consider the nature of both duties. Call-takers are capable of answering only one call at a time. They are responsible for dealing with members of the public who are often in states of panic and are tasked with extracting critical incident information to relay to first responders. Further, given the potential for a serious emergency, they are required to answer all calls in a timely fashion and work efficiently to avoid line blockage or dropped calls.

Telecommunicators deal directly with first responders throughout the duration of a call or incident. They provide timely responses to questions and data/information requests from those first responders and are tasked with monitoring and supporting officers, firefighters, and paramedics in the field. They are often responsible for monitoring multiple incidents at a time. Dispatchers are able to monitor multiple incidents because requests for information, outside of the initial relay of incident information, require shorter bursts of engagement and communication.

Some jurisdictions with relatively low call-volume and dispatch channel traffic are able to effectively require Telecommunicators to both field emergency calls and monitor dispatch channels. However, as call volume increases, this creates several service challenges. When Telecommunicators are answering an emergency call, they are unable to perform any additional tasks such as responding to officer or firefighter queries. Call-taking requires dedicated and uninterrupted attention to each call. As call volume increases, therefore, Telecommunicators become unavailable to first responders, and this causes delays in information relay that can potentially result in safety concerns or impede effectiveness in the field. In fact, one of the common issues expressed by dispatch customers was the perception that Telecommunicators are often unavailable to answer questions from the field in a timely fashion. This was especially evident in the area of fire dispatching. Given that the Telecommunicator who is responsible for the City and County fire dispatch channel typically serves as the primary call-taker in the Dispatch Center, their availability to proactively engage in fire dispatch duties can be limited and response times can suffer.

The Association for Public-Safety Communications Officials is an international non-profit that serves the needs of public safety communications practitioners worldwide. APCO acts as a knowledge and best practices clearinghouse and training resource for emergency communications agencies. According to APCO, most large dispatch centers seek to staff dedicated call-taking and dispatch channels with separate personnel and utilize dispatchers as back-up call-takers should peaks in the workload necessitate a dual

role.¹ The Monroe County Dispatch Center fields over 110,000 calls per year. Given this call volume, and the service considerations detailed herein, it is appropriate to begin staffing the Dispatch Center with dedicated call-taker and dispatcher positions.² APCO defined separate staffing guidelines and approaches for these two functions and, as such, they must be analyzed separately.

Staffing needs in the dispatch function are driven by "coverage" needs (e.g., the number of positions that require an employee to be at a terminal to cover the radio) for active dispatch channels. The best practices guideline is to staff each active channel with one dedicated dispatcher.³ Though, in periods of low call volume (e.g., between 2:00 am and 6:00 am), more than one channel can sometimes be monitored by a dispatcher. Unlike the dispatch function, staffing needs for the call-taking function change as the workload fluctuates (i.e., the number and duration of calls). Therefore, call-taking staffing levels should be based on volume. Therefore, the Dispatch Center's minimum staffing level would be based on a combination of both the dispatch positions necessary and the call volume by hour of the day. To evaluate total Telecommunicator staffing needs, The Novak Consulting Group first evaluated call volume to determine call-taker needs at the Dispatch Center.

The staffing needs of the call-taking function change as the workload fluctuates (i.e., the number and duration of calls). Therefore, call-taking staffing levels should be volume-based. The Erlang-C Model is a queuing theory staffing model that calculates the number of call-takers necessary to meet a desired service level expectation based on workload volume (the number of calls and their duration). The Erlang-C Model is recommended when making staffing level decisions. Using this model, the number of call-takers required by hour of the day and day of the week can be calculated given the Dispatch Center's performance service standard of answering 90% of calls within 20 seconds.

An analysis of 2018 calls for service data demonstrates that the call length for Priority 1 calls was 4:01 minutes, and average calls for service per hour ranged from four to 19 during peak weekend times. Calls for service begin to spike around 8:00 am and continue to stay elevated until 11:00 pm; on Fridays and Saturdays, the elevated call volume continues until 1:00 am. The following figure summarizes the call-volume workload profile for the Dispatch Center.

¹ APCO Project Retains Staffing and Retention in Public Safety Communication Centers Workbook, 2005

² The Unified Dispatch Center is staffed with "Telecommunicators," however, they can either serve as call-takers or dispatchers in a given shift. For purposes of clarity, Telecommunicators will be referred to as call-takers or dispatchers when referring to those specific functions.

³ APCO Staffing and Retention in Public Safety Communications Centers, Effective Practices Guide and Staffing Workbook, 2005

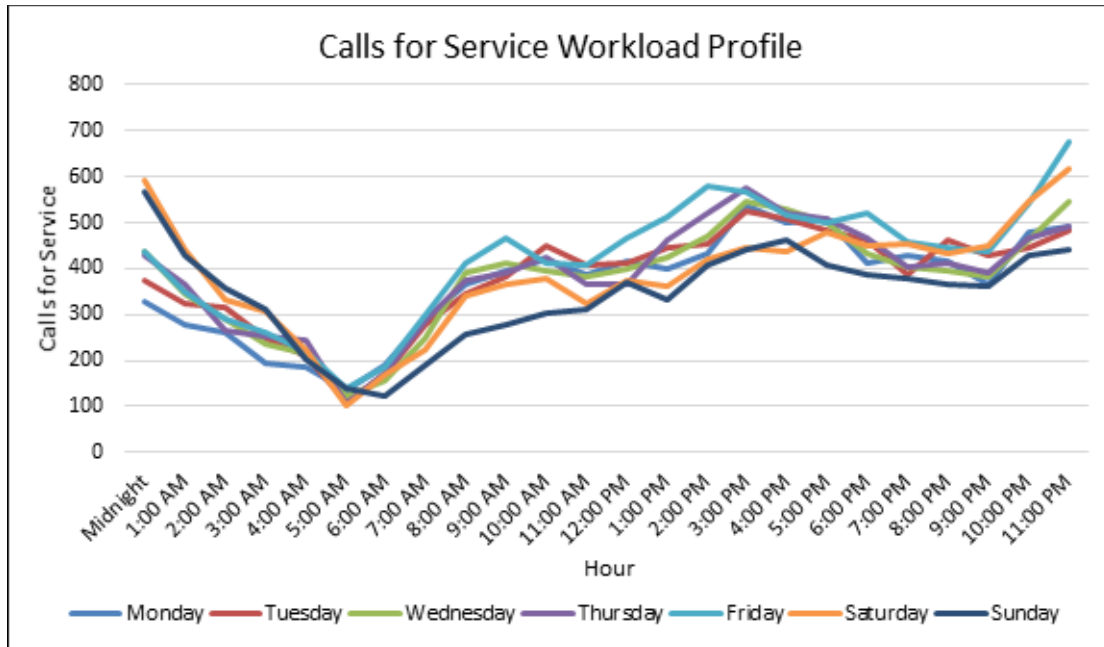


Figure 2: Calls for Service Workload Profile, based on 209 days of 2018

Applying the Erlang queuing method to this profile indicates that there is a consistent need for four call-takers during the peak period between 8:00 am and 11:00 am. That means that during this peak call volume time, the current minimum staffing level in the Dispatch Center just meets the demand for call-taking, without considering dispatch needs. During off-peak times, the number of call-takers needed drops with the decrease in calls for service; an average of only three call-takers is needed during those times. The following figure summarizes the number of dedicated call-takers that must be staffed by hour of the day.

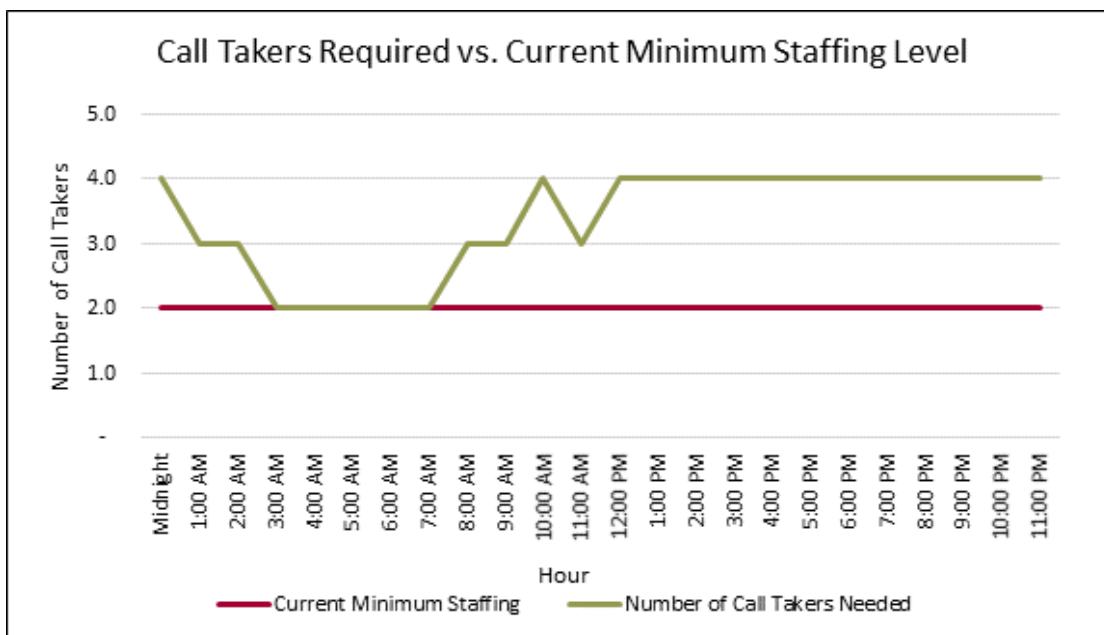


Figure 3: Call-Takers Required Compared to Current Minimum Staffing

The previous figure indicates that an average of three or four dedicated call-takers per shift is necessary to meet call volume and service level demands. Currently, the Dispatch Center is staffed with a minimum of four Telecommunicators per day. However, each Telecommunicator is responsible for fielding calls for service and staffing the Dispatch Center's four dispatch channels. Further, in practice, only two Telecommunicators serve as primary call-takers.

Having identified call-taker staffing needs, it is next necessary to evaluate dispatch staffing needs. As previously discussed, the Dispatch Center operates four main radio channels and can activate 21 operation channels or tactical channels should the necessity arise or upon the request of partner agencies. These operations and tactical channels are used intermittently by partner agencies, but Telecommunicators are expected to monitor them during their shift. Dispatch staffing needs on a given shift are driven by the number of active channels that must be monitored. To determine dispatch staffing needs, The Novak Consulting Group evaluated two staffing alternatives, both of which account for increasing the number of Telecommunicators to meet the workload demands for call-taking.

- **Scenario 1 – Provide a dedicated Dispatcher for City Police, County Law Enforcement, and General Fire/EMS:** This option would create three dedicated dispatch positions per shift. This scenario would serve to address the service level concerns from the County and City fire departments by separating the dispatch and call-taking functions and would continue the practice of segregating dispatch duties for the Sheriff's Office and Ellettsville Police from the City of Bloomington Police Department. This scenario results in a minimum staffing of between six and seven Telecommunicators per shift, depending on average call volume.
- **Scenario 2 – Provide a dedicated Dispatcher for General Law Enforcement and General Fire/EMS:** This option creates two dedicated dispatch positions per shift – one for all law enforcement calls and one for all Fire/EMS calls. This would serve to address the service level concerns from the County and City fire departments by separating the dispatch and call-taking functions, thus creating a dispatch role for Fire/EMS that is not expected to also serve as a call-taker. However, in this scenario, all law enforcement calls would be dispatched by a single dispatcher, improving the coordination between jurisdictions. This scenario results in a minimum staffing of between five and six Telecommunicators per shift. Call-takers would serve as a backup for dispatch and would staff tactical channels if necessary.

For each of these scenarios, The Novak Consulting Group evaluated the staffing level needed for 12-hour, 10-hour, and 8-hour shift schedules. In addition, a staffing factor was used to account for the use of paid time off by Telecommunicators, and a turnover factor was used to reflect that emergency communications, as an industry, experiences a high level of turnover due to the nature of the work.

A staffing factor is an inflator that identifies the number of total FTEs that must be hired to staff a position while also allowing sufficient time for leave, such as vacation or sick time. For example, a typical 8-hour employee is scheduled to work 2,080 hours per year, but due to vacation and sick leave, that employee may only be available to work 1,800 hours per year. Therefore, to staff a position for the full 2,080 hours per year, 1.15 FTEs would be needed (2,080 hours divided by 1,800 available hours). To determine the applicable staffing factor for the Dispatch Center, The Novak Consulting Group analyzed the total paid time off (PTO) used by Dispatch Center employees for the 2018 calendar year. This data showed that there was a large variance in the amount of leave used, from as little as eight hours to as much as 329 hours. To avoid the outliers affecting the staffing factor, The Novak Consulting Group used the median PTO usage, which was 242.25 hours. This equates to a staffing factor of about 1.13, as detailed in the following table.

Table 7: Calculating the Staffing Factor, 2018 Paid Time Off

Calculating Staffing Factor - 2018 Paid Time Off (PTO)			
Scheduled Hours	Median PTO Hours Used	Employee Hours Available	FTEs Needed to Fill One Position
2,080.00	242.25	1,837.75	1.13

When applied to the call-taker and dispatch needs at the Monroe County Dispatch Center, the staffing factor adds between three and five FTEs, depending on the shift schedule and scenario.

In addition to the staffing factor, a turnover factor was applied to account for the number of vacancies or separations experienced by the Dispatch Center. The turnover factor is another inflator that identifies the number of FTEs needed to account for some regular rate of turnover. For example, if a department needs 10 positions to provide a service but, based on their number of separations, 20% of positions are vacant, then 12 FTEs would be needed to ensure 10 positions are always occupied. In FY2019, the Dispatch Center experienced six separations and had nine vacancies as of January 1, 2019. Instead of basing the turnover factor on that limited data, The Novak Consulting Group used a factor from an APCO study that showed a 16% turnover rate for 911 centers in the Midwest region.⁴ This turnover factor resulted in an additional five to eight FTEs depending on the shift schedule and scenario.

The following table summarizes the Telecommunicator staffing need for each staffing scenario. In addition, Attachment A includes a detailed summary of shift schedule start times as well as staffing implications for each schedule alternative.

Table 8: Summary of Telecommunicator Staffing Options

Scenario 1 - Designated dispatchers for City Police, County Law Enforcement, and General Fire/EMS							
	Call-Takers Needed	Dispatch Needed	Staffing Factor	Turnover Factor	Total Staff Needed	Current Staffing	Additional Staff
12-Hour Schedule	14	12	4	5	35	25.5	9.5
10-Hour Schedule	20	18	5	7	50	25.5	24.5
8-Hour Schedule	17	15	4	6	42	25.5	16.5
Scenario 2 - Dedicated dispatchers for General Law Enforcement and General Fire/EMS							
	Call-Takers Needed	Dispatch Needed	Staffing Factor	Turnover Factor	Total Staff Needed	Current Staffing	Additional Staff
12-Hour Schedule	14	8	3	4	29	25.5	3.5
10-Hour Schedule	20	12	4	6	42	25.5	16.5
8-Hour Schedule	17	10	4	5	36	25.5	10.5

The staffing models indicate that the 12-hour shift configuration is the most efficient schedule option available, followed by the 8-hour and the 10-hour configurations. The 12-hour shift schedule also pairs well with the Dispatch Center's workload profile. This schedule has the added benefit of rotating weekends off for Telecommunicators, which is a useful retention and recruitment tool. It is important to note that to implement a 12-hour staffing schedule, the Dispatch Center needs to be adequately staffed.

⁴ Staffing and Retention in Public Safety Communication Centers, APCO Project Retains, August 2005.

Longer shifts mean that if regular overtime is required, it will increase the rate of burnout and stress on Telecommunicators. Staffing for a 12-hour shift schedule cannot be set at the minimum needed for the Dispatch Center; it must be large enough to account for time off and turnover.

The 12-hour schedule requires eight hours of Fair Labor Standards Act (FLSA) overtime for every 14-day work period. This is because employees performing dispatch and call-taking duties are not eligible for the overtime exception provided for employees in law enforcement or fire protection activities.⁵ The schedule can be laid out in a way to limit the overtime by having four shifts in one half of a 14-day pay period and three shifts in the other half. Since the 12-hour schedule does not provide for any overlap of shift teams, staff will need to come in outside of regular hours to complete training. In a week with three shifts, up to four hours of time could be used for training before additional overtime is incurred. Attachment B contains a detailed breakdown of a sample 12-hour shift schedule.

The 12-hour shift schedule is the most appropriate for the Dispatch Center. Considering the staffing levels of each scenario, the Scenario 1 level will most effectively address the quality of service provided by the Dispatch Center. Scenario 1 calls for a minimum of six Telecommunicators per shift, with three dedicated dispatchers per shift and three or four call-takers. As a reminder, the Dispatch Center does not have any dedicated dispatcher positions on a shift. All Telecommunicators are asked to take calls and dispatch simultaneously. The value of implementing Scenario 1 is significant. This will provide dedicated dispatching for fire and EMS calls, as well as law enforcement calls throughout the County. In Scenario 1, dispatchers could serve as backup to the call-takers during peak demand.

To implement the Scenario 1 staffing recommendation, the total number of Telecommunicators needed is 35 FTEs, which represents an increase of 9.5 FTEs from the current 25.5 FTEs. The cost of these additional positions was calculated using the midpoint salary assumptions for the Telecommunicator positions, plus the City of Bloomington's standard budget assumptions for vacant civil positions, which are 22% of salary for FICA and pension benefits as well as \$14,500 for other employee benefits. The following table outlines the cost of implementing the Scenario 1 staffing recommendation.

Table 9: Cost of Additional Telecommunicator Positions

Position	FTE	Salary	Benefits	Total Cost
New Telecommunicators	9.5	\$464,475	\$239,935	\$704,410

Though the analysis detailed above identifies the optimal staffing structure to meet workload demands and customer expectations, it is important to note that it may not be immediately feasible to add 9.5 additional positions. However, interim steps that also represent service level improvements are available. As an interim step, the Dispatch Center could seek to implement a 12-hour shift but only staff up during the day shift, which corresponds to higher call volumes. During low volume call times, it is reasonable to decrease the dispatcher staffing from three to two, requiring fewer FTEs overall. This interim approach would require 31.5 Telecommunicator positions. This represents an increase of six FTEs at a cost of \$444,876, including salary and benefits.

Recommendation 2: Adopt a staffing target of one Supervisor per shift team under a 12-hour shift schedule alternative.

⁵ Law Enforcement Activities, [29 C.F.R. § 553.211\(g\)](#); Opinion Letters – Fair Labor Standards Act, [FLSA2008-5NA](#)

Current staffing levels in the Dispatch Center have often required Telecommunicator Supervisors to cover call-taking and dispatching duties on shift. Under the current shift schedule, Telecommunicators also do not work with a consistent supervisor shift to shift. With the Telecommunicator staffing increase discussed in Recommendation 1, there will be added capacity for the shift teams so that Supervisors no longer need to cover Telecommunicator roles. It should still be a requirement that Supervisors are able to provide call-taking and dispatching duties should the need arise; however, increasing Telecommunicator staffing will better enable supervisors to focus on supervision and quality control. It will also impact the number of supervisors required to cover shift staffing needs.

The 12-hour shift schedule requires four shift teams to cover 24 hours a day, seven days per week, while the current 8-hour shift schedule requires six supervisors. As such, it is possible to reduce budgeted supervisory staffing by two FTEs. This will also provide for permanently assigned supervisory relationships and limit the practice of employees serving under multiple supervisors. With recommended increases in Telecommunicator staffing, this will result in a supervisor-to-subordinate staffing ratio of 1:7.

In FY2019, the Dispatch Center received funding for additional Supervisor positions, increasing the total number of budgeted Supervisors from three to six. The new positions have remained vacant, and all three positions are not needed in the 12-hour shift schedule. Therefore, it is recommended that two of the vacant Telecommunications Supervisor positions be eliminated for an annual savings of \$154,260.

Table 10: Cost Impact of Supervisor Changes

Position	FTE	Salary	Benefits	Total Cost
Telecommunicator Supervisors	2.0	\$(102,672)	\$(51,588)	\$(154,260)

Training and Quality Assurance

One of the indirect results of the Dispatch Center's restricted staffing is that there has been limited time available for dedicated training and quality assurance. This results in three significant issues. First, Telecommunicators are unable to dedicate sufficient annual hours for continuing education. Second, training officers are unable to dedicate significant one-on-one training time to new hires because training officers are required to simultaneously staff call-taking and dispatching terminals. This prolongs the amount of time required to train new hires. Third, there is little time available to develop and maintain a formal training program informed by robust, proactive Quality Assurance (QA) processes and procedures.

Recommendation 3: Create a proactive Training and Quality Assurance program.

The Dispatch Center does not have an established Quality Assurance (QA) program. Additionally, there are no clear evaluation guidelines for reviewing calls, nor is there a regular review of cases not involved with a complaint. Calls, or cases, are only reviewed if a partner agency submits a complaint. Currently, after a complaint, Supervisors or management will pull a call and review it with the Telecommunicator involved.

Additionally, ongoing training is not routinely provided, nor is it informed by a QA program. Therefore, it is recommended that the Dispatch Center establish a robust QA program that can inform proactive, ongoing training for Telecommunicators. This program should be developed under the leadership of the new Assistant Telecommunications Manager position, discussed in Recommendation 7.

The QA program should be based on the APCO and National Emergency Number Association (NENA) guidelines for quality assurance programs. The focus should be on evaluating both Telecommunicator strengths as well as identifying areas for improvement and not punitively focused. APCO, in partnership with NENA, developed a standard to define the recommended minimum components of a QA program within a public safety communications center. The standard defines seven key components of an effective program. Those components, and the substantive elements of each as they relate to the Monroe County Dispatch Center, are described below:⁶

1. **Case Review Criteria:** The Dispatch Center should establish the criteria under which incidents will be evaluated. All components of the incident should be evaluated by a manager and/or supervisor, including but not limited to call-taking, data entry, dispatching, status keeping, and other key Telecommunicator tasks. Ideally, the work of each Telecommunicator would be evaluated at random and at specific intervals, and corrections and adjustments would be conveyed in recurring one-on-one meetings between the Assistant Manager and/or Supervisor and Telecommunicators.
2. **Evaluation Guidelines:** The Dispatch Center should establish standard evaluation guidelines defining minimum performance expectations for each rating category to ensure compliance with Dispatch Center expectations and industry-recognized protocols. These expectations should be clearly defined, measurable, and effectively communicated. The case review process should apply directly to these evaluation guidelines, which should be informed by standard operating procedures. The process should adequately measure the quality and performance of the service provided. This process includes, but is not limited to, analysis of performance trends, compliance with protocols and standard operating procedures, customer service, optimizing the use of agency resources, the overall performance of each employee, and reviewing the operation as a whole.
3. **Oversight Committees:** The Dispatch Center should establish discipline-specific (e.g., law enforcement, fire/rescue, EMS) oversight committees who formally meet to ensure compliance with Dispatch Center policies and procedures. Agendas and minutes of each meeting should be maintained as part of the QA process, and outcomes should be communicated to all Telecommunicators.
4. **Program Monitoring:** In the normal course of business, the Dispatch Center should review at least 2% of all calls for service and a random sampling of cases for each Telecommunicator. All cases involving high acuity should be reviewed. High acuity is defined as emergency situations that require an elevated or atypical response; they may involve loss of life, significant property damage, or are of such magnitude that they produce high-stress reactions in Telecommunicators and first responders. These reviews should occur as soon as possible after the receipt of the call and/or following the radio dispatch or at least within five days, notwithstanding extenuating circumstances that prevent such a review.
5. **Record Keeping:** The Dispatch Center should establish a recordkeeping system, including report forms and/or a computer-based data management system, to permit storage and subsequent evaluation of case records in a confidential manner. The quality assurance reviews should be maintained according to a recordkeeping or retention policy.

⁶Standard for the Establishment of a Quality Assurance and Quality Improvement Program for Public Safety Answering Points, APCO & NENA.

6. **Reporting and Feedback:** The Dispatch Center should establish a mechanism for reporting quality assurance/improvement performance outcomes to the appropriate personnel regularly per agency and/or protocol guidelines. The Dispatch Center should develop appropriate reporting systems to inform management and employees about performance levels and help identify areas of superior performance as well as areas for improvement and remedial action. The Dispatch Center should develop a communication plan that defines the purpose of each report, the recipients, the sources of data, and the metrics used in case evaluations. Feedback to each Telecommunicator should be timely, accurate, and objective.
7. **Written Directives:** The QA program should be based on a series of written directives and standard operating procedures. Furthermore, the outcomes of the QA program should be proactively utilized to adjust and improve the Dispatch Center's standard operating procedures.

An effective quality assurance program serves as the basis of a good training program. The process of proactively monitoring the outcomes of calls provides a mechanism to ensure consistency of service and provides a useful structure for training curriculum design. The QA program should inform Dispatch Center-wide training in addition to individual performance improvement.

Dispatch Protocols and Service Level Expectations

The adequate staffing level for the Dispatch Center is important to identify and implement. However, even with adequate staffing, the expected service provided to customer agencies will not be met without better defining protocols and service level expectations. The challenge of a unified dispatch operation is ensuring all agencies receive the service they need based on the unique challenges of their organization, while at the same time allowing for consistency across the different agencies. Establishing updated protocols and service level expectations will be important to both Telecommunicators and customer agencies in order to understand the expectations of the Dispatch Center.

Recommendation 4: Develop revised dispatch protocols for customer agencies.

As previously discussed, the Dispatch Center is responsible for providing public safety call-taking and dispatching services for 13 agencies in 11 jurisdictions. This consolidated, regional approach to dispatching provides several useful advantages. It eliminates the need for each jurisdiction to develop its own call-taking and dispatching staffing resources and avoids the cost of developing and maintaining separate CAD systems. This represents significant cost savings for participating jurisdictions. Participation in a regional dispatch center also serves to connect all regional public safety agencies through a unified radio and dispatching network that supports interoperability and mutual aid goals. However, there are also disadvantages to the regional approach.

When a municipality or public safety agency maintains its own dispatch operation, they can define their own dispatch protocols; individual dispatchers and call-takers develop a detailed knowledge of the service area and the preferences and expectations of individual service providers in the field. This "personal touch" is valued by first responders and takes advantage of the ability of seasoned dispatchers to draw upon knowledge and experience to increase value in an emergency response. However, when a jurisdiction moves to participate in a regional dispatch center, the ability to maintain unique dispatch protocols for each jurisdiction is limited, and dispatcher familiarity with a jurisdiction can be negatively impacted.

The advantage of dispatch protocol standardization is that it allows for uniform instructions and the ability to prioritize responses. A structured protocol provides consistent answers to pre-determined questions, which creates consistency in the way that dispatchers communicate with units in the field and has been shown to limit errors. Further, it is necessary to realize the economies of scale offered through a regional approach. However, it is also possible to achieve standardization while also providing some customizable features that apply to a jurisdiction. For example, it is reasonable to develop a standard call prioritization framework for each jurisdiction while also developing specific dispatching rules for each call type that apply to individual jurisdictions. It will be important to ensure that those protocols are consistently adhered to within each agency across all shifts.

However, customer agencies expressed frustration with perceived inconsistencies in dispatching protocols and the time it has taken to create or update protocols for each customer agency. In some cases, the effort to develop updated protocols has stalled for years due to staffing constraints in the Dispatch Center. One of the most important steps that the Dispatch Center can take to improve customer service is to move to develop and formalize dispatch protocols for each customer agency. This will require several important steps.

First, it will be necessary to document the existing protocols for each jurisdiction and the core requirements of the Dispatch Center and to ask each jurisdiction to identify the requested changes and revisions to their response guidelines. This will also provide an opportunity for the Dispatch Center to clarify those elements of dispatch protocol that must be applied to each agency uniformly and to response guidelines and run cards for each customer agency. Next, the Telecommunications Manager should assemble an internal committee of dispatchers to review and vet proposed changes and develop an implementation timeline for consideration by the Dispatch Policy Board. This timeline should then be communicated to customer agencies and, once finalized, regular progress reports should be provided to those agencies and the Dispatch Policy Board. A training program should also be developed by the Dispatch Center, and all Telecommunicators should be trained on the revised protocols before they are fully implemented. It is reasonable to expect this process to be completed within one year.

Recommendation 5: Develop service level agreements with each customer agency.

Though the Dispatch Center is managed by the Bloomington Police Department, each police and fire department is an important customer and user of emergency call-taking and dispatching services. As a result, it is reasonable for those agencies to have a clear expectation of services provided by the Dispatch Center and a mechanism to resolve issues efficiently and effectively. Likewise, it is reasonable for the Dispatch Center to expect a clear and consistent definition of dispatch protocol from agencies and for the agencies to consistently adhere to those protocols.

To address these issues, it is appropriate for the Dispatch Center to develop a formal service level agreement with each customer agency that clarifies expectations for both the agency and the Dispatch Center. These agreements should also establish clear performance goals and expectations. Each service level agreement should clearly specify dispatch protocols for the customer as well as a formalized process, approach, and reasonable timeline to adjust dispatch protocols when the need arises. The agreements should clarify performance expectations and associated performance metrics that can be tracked and used to monitor and improve service quality.

The service level agreements should be reviewed and approved by the Dispatch Policy Board. The Dispatch Policy Board, as discussed in Recommendation 9, should be strengthened to provide more direction and guidance to the Dispatch Center and the Telecommunications Manager. Service level agreements should be reviewed and evaluated by the Dispatch Policy Board for consistency across agencies, and concerns

with performance or expectations by customer agencies should be brought to the Dispatch Policy Board. This review of expectations will also allow the Telecommunications Manager and Assistant Manager to develop targeted training for the implementation of the service level agreements, updated protocols, and any concerns raised by customer agencies.

Recommendation 6: Incorporate cross-training into Telecommunicator and first responder training.

Telecommunicators work closely with Police Department, Fire Department, and EMS personnel daily. However, an understanding of their customers' experience in the field is often not part of the new hire training curriculum. Further, several of the seasoned dispatchers who provide services to each of the 11 jurisdictions served by the Dispatch Center are unfamiliar with some of the public safety environments.

Many organizations have incorporated ride-a-longs into their training programs to provide Telecommunicators with the opportunity to build a professional rapport with responders while also learning about the needs and challenges that arise in the field. Gaining such a perspective often results in Telecommunicators being able to provide a higher level of service to field personnel and is particularly helpful in unified dispatch centers where dispatchers are not direct employees of customer agencies and are therefore not directly integrated into the informal and formal organizational and peer networks of those agencies. This is important in Monroe County, where different customer jurisdictions report that the Telecommunicators do not understand the nuances of their agency. This is particularly felt by the County fire departments who feel that Telecommunicators are only familiar with the Bloomington Fire Department and knowledge of that more urban fire department cannot be applied to the rural nature of their service areas.

Conversely, it is also important for first responders to develop some familiarity and understanding of dispatch operations. Police, fire, and EMS personnel in customer agencies have little engagement with the Dispatch Center apart from radio contact. When these first responders experience delays in the information relay process, there is little contextual understanding of the additional workload constraints that dispatchers may be facing at that moment. This may create perceptions of poor customer service when, in reality, dispatchers are working to prioritize multiple demands from multiple first-responders as well as taking calls from the public.

Currently, there is no formal cross-training done between the Dispatch Center and the agencies they serve. Telecommunicators or first responders can take it upon themselves to reach out to agencies and create service familiarization, but that needs to be done outside of shift times, and the recent relocation of the Dispatch Center to its current location has complicated receiving visitors. Non-dispatch personnel must have someone let them into the Dispatch Center, requiring coordination and availability that the current staffing level of the Dispatch Center does not support.

Improving familiarization will have an impact on the expectations of both Dispatch Center employees and the officers and firefighters with whom they closely work. This will build context among peers so that, for example, Telecommunicators understand why police officers need the information that they do, and police officers understand the demands placed on Telecommunicators and the information they are asked to process.

The Dispatch Center should work with the Police and Fire Departments and IU Health to incorporate ride-a-longs into the Telecommunicator training curriculum. A ride-a-long program can also provide experienced Telecommunicators with an excellent continuing education opportunity. In addition, customer agencies should build an intentional process of exposing both new personnel and supervisory

personnel to dispatch operations. Supervisors would then be tasked with relaying context to subordinates and will be better equipped to manage the relationship between first responders and telecommunicators.

Organization Structure

Recommendation 7: Convert the Training Coordinator into an Assistant Telecommunications Manager.

Dispatch Center management, as well as relationship management with customer agencies, is the responsibility of the Telecommunications Manager. However, the current organizational structure for the Dispatch Center does not include a backup for the Telecommunications Manager. In practice, this means that less time is spent on governance and strategic customer relations management and issues, or concerns raised are not addressed in a coordinated manner.

The Dispatch Center is staffed with a Training Coordinator position, though the position was vacant at the time of this study. The Training Coordinator is tasked with overseeing and administering the training program for all new hires and existing employees. The recommendations detailed in this report call for a significant expansion of the training and quality control program at the Dispatch Center. In addition, fundamental improvements to protocol must be developed, as well as service level management processes (see Recommendations 3-5). These tasks will require significant effort to accomplish, and additional capacity is warranted to support these efforts.

To generate this capacity, it is appropriate to convert the Training Coordinator position to an Assistant Telecommunications Manager position. This will allow the Telecommunications Manager to focus on strategic issues and relationship management. The Assistant Telecommunications Manager will focus on the day-to-day supervision of Dispatch Center staff and work to establish a proactive quality assurance program that will be supported by shift supervisors.

Reclassifying the Training Coordinator to an Assistant Telecommunications Manager would not have a cost impact for the Dispatch Center because the position is anticipated to remain the same pay grade. Currently, the Training Coordinator is a Grade 8 on the City of Bloomington's pay scale, and the Assistant Manager position would remain a Grade 8.

Recommendation 8: Reassign the CAD-RMS Data Coordinator position to report to the Telecommunications Manager.

The Dispatch Center is staffed with a CAD-RMS Data Coordinator (CAD Analyst) position. The CAD Analyst is tasked with troubleshooting CAD and RMS technology issues and works with the County's CAD provider to address issues when they arise, run service patches, and administer program updates. The CAD analyst is also tasked with generating reports and performance metrics for customer agencies as requested.

Currently, the CAD Analyst reports to the Chief of Police's Executive Assistant. This decision was made several years ago to reflect that the Analyst also works with the records workgroup within the Police Department. Leadership at the time did not want the position to favor one workgroup over the other, so the position was assigned to a supervisor who was not in either workgroup. However, in practice, the CAD Analyst is primarily tasked with addressing CAD technology issues and developing reports. Telecommunicators rely on the Analyst to address issues they experience with the CAD software, and partner agencies rely on the position to pull reports and maintain the connection between CAD and their respective RMS. Further, Recommendation 3 calls for a significant expansion of quality assurance and performance measurement monitoring practices that will require the consistent attention of the CAD Analyst. In addition, the CAD Analyst is housed at a separate building that their current supervisor, which

impedes supervisory oversight, direction, and support. To that end, it is prudent to reassign the CAD Analyst position to report directly to the Telecommunications Manager.

The following figure illustrates the recommended organization structure for the Dispatch Center. Positions highlighted in orange indicate a new position, and blue indicates a restructured position.

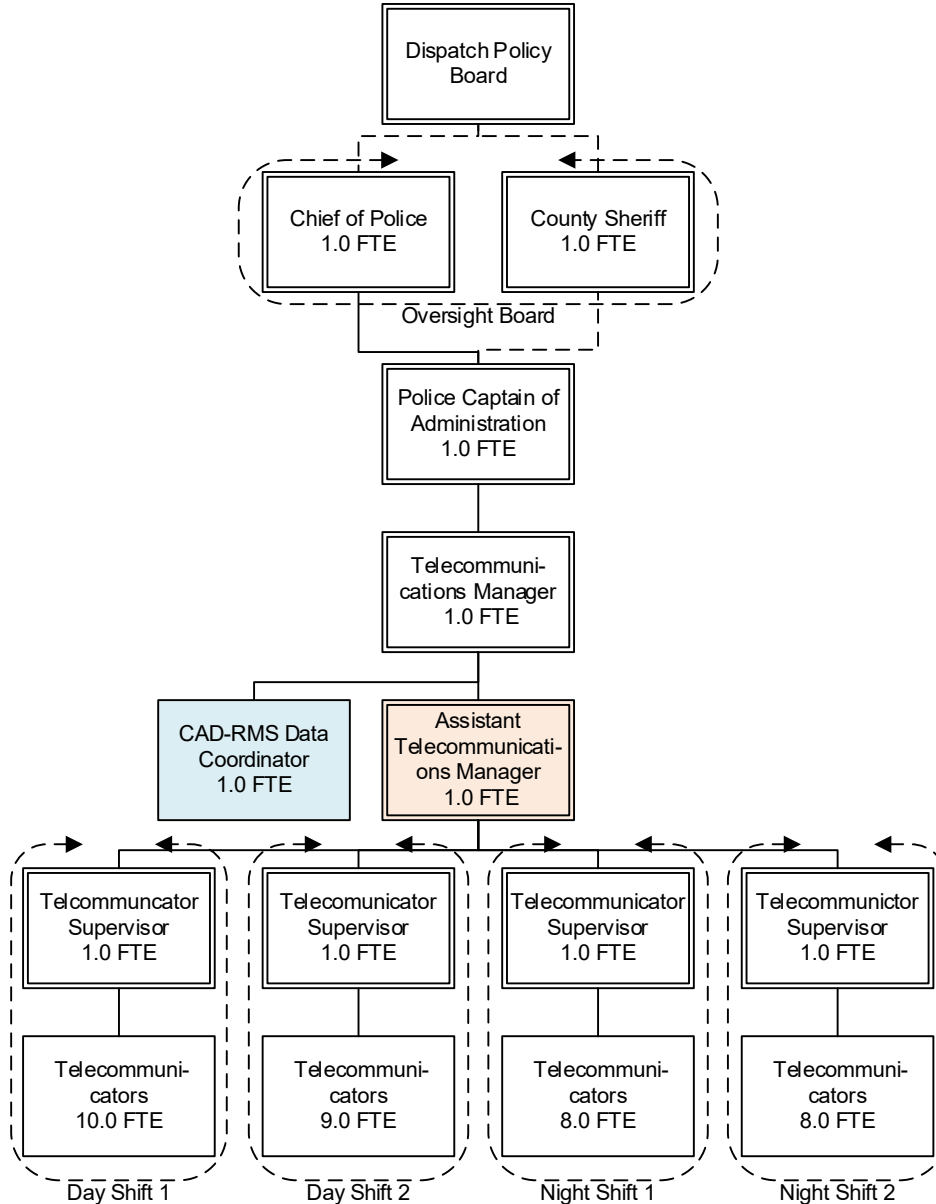


Figure 4: Recommended Dispatch Center Organizational Structure

Governance

The Dispatch Center currently provides police, fire, and EMS dispatch services to 13 public safety agencies: Monroe County Sheriff's Office; City of Bloomington Police and Fire Departments; Town of Ellettsville Police and Fire Departments; IU Health EMS; and five County fire districts. The current Interlocal Agreement calls for the City of Bloomington to manage the day-to-day operations of the Dispatch Center. This is largely because City police and fire service calls represent the largest share of dispatch calls. In 2018, the City comprised 46.1% of total call volume, IU Health comprised 11.8%, and all other jurisdictions combined to make up 42.1%.

In any environment where a single department is tasked with providing service to 13 different public safety agencies, there will be challenges. Each serves a fundamentally different community and with varying internal and external service levels and goals. These challenges are evident within the Dispatch Center, and this has led some customer agencies to advocate for the Dispatch Center to be reorganized as an independent agency that does not report to a single jurisdiction – in this case, the City of Bloomington. This advocacy is largely based on the belief that the challenges reflected in the Dispatch Center are a condition of reporting structure rather than resource, policy, or procedural issues.

Governance is ultimately a political decision that is influenced by factors outside of the realm of dispatch operations. The Novak Consulting Group believes that the implementation of the operational recommendations detailed in this report will have a positive impact on the service provided by the Dispatch Center and will resolve the concerns felt by customer jurisdictions. However, there are opportunities to enhance the governance processes to more effectively manage service level expectations and demands.

Recommendation 9: Strengthen the role of the Dispatch Policy Board and Oversight Board.

The Interlocal Agreement defines the roles and responsibilities of the Dispatch Policy Board and the Oversight Board. The Policy Board is composed of the Ellettsville Fire Chief, Bloomington Deputy Police Chief, Monroe County Chief Deputy, Bloomington Deputy Fire Chief, and the Director of Community Engagement and Threat Assessment for Indiana University. The Policy Board meets bi-monthly and is responsible for providing broad direction to the Oversight Board, approving contracts and payments, resolving service level disputes between customer agencies, and providing broad oversight of Dispatch Center policies and procedures.

The Oversight Board is composed of the Monroe County Sheriff and the Bloomington Chief of Police. The Oversight Board meets as needed and is tasked with administering processes and procedures, maintaining Dispatch Center budgets, and exercising general oversight of Dispatch Center operations. It is important to reiterate that the Police Chief maintains oversight of Dispatch Center personnel.

In practice, however, the Telecommunications Manager, under the authority and direction of the Chief of Police or his/her designee, provides direct oversight of dispatch operations. The Oversight Board meets infrequently, and the Policy Board does not have a consistent role in resolving customer issues as they arise. As a result, these tasks have largely been left to the Telecommunications Manager to address. In this environment, the value and utility of the Policy Board and the Oversight Board as a mechanism to ensure consistent service to all customer agencies is diminished.

There are three key opportunities to address this issue. First, it is recommended that the Oversight Board begin a practice of meeting monthly with the Telecommunications Manager to review the totality of

dispatch operations, ongoing projects, issues, and opportunities. To accomplish this, the Telecommunications Manager should develop a formal agenda for each Oversight Board meeting that serves to address five key characteristics: 1) operations updates; 2) financial condition; 3) customer service/public relations; 4) special project updates; 5) performance indicators. These are summarized below:

- **Operations updates** – Describe the status of current or pending projects for the Dispatch Center. Effort should be made to discuss progress on the existing work plan, outstanding items and the plan to address them, obstacles or challenges to success, and the requirements to overcome those issues.
- **Financial condition** – Every quarter, the Telecommunications Manager should report the status of their operating budget and spending to date as compared to the prior year's spending. Current or projected unanticipated expenses should be discussed and, if necessary, should be elevated to the Policy Board for discussion. In addition, unanticipated cost overruns should be reported as they become evident.
- **Customer service/public relations** – Any current or projected issues that could affect the public, internal customers, or customer agencies should be discussed, and a plan for communication with the appropriate parties and the Policy Board should be established.
- **Special project updates** – Status updates on any special projects should be reported during the Oversight meeting.
- **Performance indicators** – Every quarter, the Telecommunications Manager should report the progress of executive-level performance measures for the Dispatch Center. Executive-level performance measures are high-level indicators of program outcomes and costs compared to prior years and established goals. These indicators should be explicitly defined in the service level agreements detailed in Recommendation 5.

Second, the Bloomington Police Department Captain of Administration, who provides direct oversight of the Telecommunications Manager, should institute a practice of conducting a weekly one-on-one meeting with the Telecommunications Manager to review the work plans, personnel issues, financial condition, and pending developments relating to the Dispatch Center's work.

Third, the Oversight Board and the Telecommunications Manager should develop and maintain a comprehensive work plan and monthly report that can be shared and discussed with the Policy Board at the monthly meeting. This work plan should describe major projects and provide a clear and measurable pathway toward transparently communicating and resolving service level issues. This will provide a direct mechanism of accountability and will also strengthen the role of the Policy Board as the primary arbiter of service issues for the Dispatch Center.

This strengthening of the role of the Policy Board and Oversight Board will require a willingness to collaborate from the leadership of the Dispatch Center. Leaders in customer jurisdictions will also need to be willing to take on additional responsibility and commit to regularly engaging with the Dispatch Center. This will be a change from the current operation of the Dispatch Center but it will be important to ensuring that all customer jurisdictions feel served by the Dispatch Center and that the Telecommunications Manager is provided the proper support and direction.

Conclusion

The Unified Dispatch Center is staffed with dedicated personnel who are committed to the service they provide to the public and internal customers. It is not uncommon for Dispatch Center staff to go the extra mile by working 12 to 16-hour shifts to ensure that the Dispatch Center is staffed with a minimum number of call-takers and dispatchers. Interviews with Center staff also indicate a clear desire to implement enhanced training programs and accomplish special projects on behalf of police and fire customers. However, staffing constraints in the Dispatch Center have necessitated a focus on core call-taking and dispatching responsibilities and left little room for other projects and programs.

To effectively address this workload, it is necessary for the Dispatch Center to increase staffing and, just as importantly, to implement proactive efforts to heighten and maintain the quality of service offered to internal and external customers. Achieving the changes recommended in this report will require diligent leadership and management oversight.

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Attachment A – Shift Schedule Alternatives and Associated Dispatch Center Staffing Requirement

STAFFING SCENARIO 1 - COUNTY LAW ENFORCMENT, CITY POLICE & GENERAL FIRE DISPATCH				
12-hour Shift	Call-Takers	Dispatchers	Total Telecommunicators	Total FTE Required
Team 1 - 7:00 am to 7:00 pm	4.00	3.00	7.00	9.19
Team 2 - 7:00 pm to 7:00 am	3.00	3.00	6.00	7.88
Team 3 - 7:00 am to 7:00 pm	4.00	3.00	7.00	9.19
Team 4 - 7:00 pm to 7:00 am	3.00	3.00	6.00	7.88
			Total	34.14
10-hour Shift	Call-Takers	Dispatchers	Total Telecommunicators	Total FTE Required
Team 1 - 7:00 am to 5:00 pm	3.00	3.00	6.00	7.88
Team 2 - 2:00 pm to 12:00 am	4.00	3.00	7.00	9.19
Team 3 - 9:00 pm to 7:00 am	3.00	3.00	6.00	7.88
Team 4 - 7:00 am to 5:00 pm	3.00	3.00	6.00	7.88
Team 5 - 2:00 pm to 12:00 am	4.00	3.00	7.00	9.19
Team 6 - 9:00 pm to 7:00 am	3.00	3.00	6.00	7.88
			Total	49.89
8-hour Shift	Call-Takers	Dispatchers	Total Telecommunicators	Total FTE Required
Team 1 - 6:00 am to 2:00 pm	5.00	5.00	10.00	13.13
Team 2 - 2:00 pm to 10:00 am	7.00	5.00	12.00	15.75
Team 3 - 10:00 pm to 6:00 am	5.00	5.00	10.00	13.13
			Total	42.01

STAFFING SCENARIO 2 - GENERAL LAW ENFORCMENT & GENERAL FIRE DISPATCH				
12-hour Shift	Call-Takers	Dispatchers	Total Telecommunicators	Total FTE Required
Team 1 - 7:00 am to 7:00 pm	4.00	2.00	6.00	7.88
Team 2 - 7:00 pm to 7:00 am	3.00	2.00	5.00	6.56
Team 3 - 7:00 am to 7:00 pm	4.00	2.00	6.00	7.88
Team 4 - 7:00 pm to 7:00 am	3.00	2.00	5.00	6.56
			Total	28.88
10-hour Shift	Call-Takers	Dispatchers	Total Telecommunicators	Total FTE Required
Team 1 - 7:00 am to 5:00 pm	3.00	2.00	5.00	6.56
Team 2 - 2:00 pm to 12:00 am	4.00	2.00	6.00	7.88
Team 3 - 9:00 pm to 7:00 am	3.00	2.00	5.00	6.56
Team 4 - 7:00 am to 5:00 pm	3.00	2.00	5.00	6.56
Team 5 - 2:00 pm to 12:00 am	4.00	2.00	6.00	7.88
Team 6 - 9:00 pm to 7:00 am	3.00	2.00	5.00	6.56
			Total	42.01
8-hour Shift	Call-Takers	Dispatchers	Total Telecommunicators	Total FTE Required
Team 1 - 6:00 am to 2:00 pm	5.00	3.00	8.00	10.50
Team 2 - 2:00 pm to 10:00 am	7.00	4.00	11.00	14.44
Team 3 - 10:00 pm to 6:00 am	5.00	3.00	8.00	10.50
			Total	35.45

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Attachment B – Sample 12-Hour Shift Schedule

12-hour Shift Schedule (2184 annual hours)														
Shift Team	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Day Shift 1	Off	On	On	Off	Off	On	On	On	Off	Off	On	On	Off	Off
Night Shift 1	Off	On	On	Off	Off	On	On	On	Off	Off	On	On	Off	Off
Day Shift 2	On	Off	Off	On	On	Off	Off	Off	On	On	Off	Off	On	On
Night Shift 2	On	Off	Off	On	On	Off	Off	Off	On	On	Off	Off	On	On