

Final Report

**Operational Services Audit
of the
Jefferson County Sheriff's Office**

Submitted by

**Northwestern University Center for Public Safety
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Table of Contents

Section 1: Introduction	1-1
Overview	1-1
Final Report	1-2
Observations in Relation to Study Findings and Recommendations ..	1-2
Format of the Final Report	1-3
Section 2: General Evaluation and Administrative Services	2-1
Introduction	2-1
Agency Organization	2-2
Review of Policies, Procedures, etc.	2-3
Mission Statements	2-3
Increased use of Technology	2-3
Budgeting Processes	2-4
Civilian Staff	2-5
General Recommendations	2-5
Reclassification of Positions	2-6
Support Services	2-7
Synergy of Recommendations	2-7
Section 3: Patrol	3-1
Introduction	3-1
Patrol Staffing	3-2
Allocation Methods	3-6
PAM Staffing Estimates	3-6
Park Patrol-Related Recommendations	3-9
Section 4: Jail Division	4-1
Introduction	4-1
Review of Best Practices	4-1
Review of Current Practices in the JCSO Jail Division	4-2
Current Jail Division Activities	4-4
Observations and Recommendations	4-8
Section 5: Investigations Division	5-1
Introduction	5-1
Review of Current Practices in the JCSO Investigations Structure	5-2
Comparison with Other Law Enforcement Agencies	5-7
Managing Criminal Investigations	5-11
Criminal Investigation Policy – Recommendations	5-15
Investigative Personnel - Recommendations	5-15

Appendices

- 3.1 PAM Project and Methodology
- 3.2 PAM Data Requirements
- 3.3 Jefferson County PAM Data
- 4.1 Jefferson County Jail Staff Coverage Plan
- 4.2 Jefferson County Jail Housing Summary
- 4.3 Current 8-hour 5/2 – 5/3 Schedule Rotation (28-day Cycle)
- 4.4 Sample 8-hour 5/2-5/3 Schedule Rotation (28-day Cycle)
- 4.5 Position Classification Factors 5/2 – 5/3 Jail Sergeants
- 4.6 Position Classification Factors 5/2 – 5/3 Jail Deputies
- 4.7 Jail Deputy / Sergeant Time Off Data Elements
- 4.8 Time Off By Month Comparison Chart
- 4.9 Jail Deputy Available Vacation / Holiday Time
- 4.10 Deputy Benefit Time Available Summary
- 4.11 Jefferson County Jail activity schedule
- 4.12 Sample 12-hour Schedule Rotation (28-day Cycle)
- 4.13 Position Classification Factors based on 12-hour Shift
- 4.14 Staff Coverage Plan based on 12-hour Shift
- 4.15 Jefferson County Inmate Classification Status

Assessment of the Jefferson County Sheriff's Office

- Draft Final Report –

Section 1: Introduction

Overview

This document, hereinafter referred to as the Draft Final Report, is presented to the Jefferson County Sheriff's Office (JCSO) and the Jefferson County Board (the Board) by the Northwestern University Center for Public Safety (NUCPS). This report represents the draft final deliverable required as part of the current contract between the Board and the NUCPS for an "Operational Services Audit" of the Jefferson County (Wisconsin) Sheriff's Office hereinafter referred to as the Audit.

The Audit was initiated by the Board to provide a broad examination of the operations and staffing practices of the JCSO for the purpose of identifying and implementing more effective and efficient processes and methodologies, where needed, to address both current and future service demands on the sheriff's office. While the office has a long history of continually striving to improve the quality of police services to the community, the need to focus on more efficient management tools and operational procedures is particularly important in light of both likely population growth in Southeastern Wisconsin in general and in Jefferson County in particular and in consideration of current economic conditions.

The initial activities for the Audit were directed at a review of the current practices of the JCSO, accepted general guidelines for the delivery of law enforcement and jail services, and a comparison of these practices with other law enforcement agencies serving similar-sized jurisdictions. These review and comparison activities were used to assess the current staffing levels, organizational structure, policies, and operational procedures of the JCSO.

Assessments were conducted for five work areas of the JCSO:

- Patrol
- Investigations
- Support Services
- Jail
- Support staff

Under the current JCSO table of organization, the patrol and jail functions are each commanded by a captain. Both investigations and support services fall under the control of the administrative captain. Support staff are assigned to all of these functions.

Final Report

The Final Report will provide an overview of the services delivered by the JCSO and will focus on: (1) recommendations, (2) policy issues to be determined, and (3) key findings based on the data. The recommendations and development activities included new or revised methodologies and/or technologies, and where needed, new or revised policies, operational practices, and organizational changes.

Observations in Relation to Study Findings and Recommendations

In the discussion of findings for each work area, a variety of recommendations are presented. The types of recommendations vary from area to area due to differences in the workforce, work environment, and type of work associated with each area (e.g., the differences between the Jail and the Court Services area). As a result of these differences, the recommendations for one work area may emphasize using models for better determining staffing needs while recommendations for another area may place more importance on gathering more or different data to support staffing decisions.

During the process of developing the recommendations, several guidelines emerged:

- Models, by themselves, do not guarantee a more effective or efficient process. Stated another way, a new model may use an improved methodology which, in some cases, may only be feasible with new or better data sources.
- For many law enforcement operations, the key to obtaining more effective and efficient processes is, in fact, largely determined by office policies. As an example, the number of detectives required for an investigations unit is dependent on the number of cases to be investigated. However, the number of cases to investigate and how much time will be spent on each case are driven by the policies that govern investigative services. As a result, two agencies both serving comparable-sized jurisdictions may allocate different numbers of detectives and yet both may have the “correct” number of detectives for the policies that are used to govern investigative services in the two agencies.

The importance of policy in determining appropriate staffing levels for law enforcement agencies has two important implications:

1. Caution must be exercised in comparing the staffing levels of different sheriff’s Offices.
2. Staffing methodologies should include the use of office policies to estimate personnel needs.

It should also be noted that many of the commonly-used statistical measures used in law enforcement to assess or estimate police staffing are very crude measures (e.g., using patrol deputies or jail officers per 10,000 population) that may not be appropriate for most agencies.

The deputies (or more generically, “officers”) per 10,000 population measure, however, is widely accepted, and is likely to continue to be used for many years. (The fact that the FBI publishes officers/deputies per 10,000 population values every year adds to its legitimacy.) Recognizing the public acceptance of statistical measures such as deputies per 10,000 population, law enforcement agencies that believe their true staffing needs cannot be adequately estimated using simple broad-brush statistical measures are not likely to be successful in convincing funding agencies of that fact by merely claiming that their agency provides a “higher level of service.” Rather, such agencies must document their special staffing needs with the use of more sophisticated staffing procedures that are sensitive to quantitative policies and measures that reflect “levels of service.”

Format of the Final Report

The remainder of this document consists of four sections:

- Agency administration and general considerations
- Patrol Division
- Jail Division
- Investigation Division

Section 2: General Evaluation and Administrative Services

Introduction

The Jefferson County Sheriff's Office is a well-run, professional law enforcement agency. It is held in high regard by peer agencies in Jefferson County and throughout Southeastern Wisconsin. Agency executives of almost all other units of government in Jefferson County who interact with the JCSO were interviewed as part of this study. These included police chiefs of the cities and villages in the county, and other county departments such as the District Attorney, Clerk of the Court, Circuit Court Judges, and county central administration.

None had complaints or specific recommendations for changes in the delivery of service from the JCSO. The JCSO provides quality services to the citizens of the county and well fulfills all of its constitutional and statutory tasks, and more. In particular, heads of local agencies expressed appreciation for the specialized services that JCSO provides such as a SWAT Team and the Dive Team. Local agencies were also very satisfied with the intake process when their officers had to transfer prisoners for the county jail. Since these are mostly smaller agencies, they need to get their officers back in service in their jurisdictions as soon as possible; they universally thought the sheriff's personnel did everything possible to facilitate this.

Agency Organization

The current table of organization of the JCSO is shown in Figure 2-1. It is a typical organizational structure for law enforcement agencies of its size. Most agencies have an agency head with one subordinate commander leading the patrol function with another responsible for

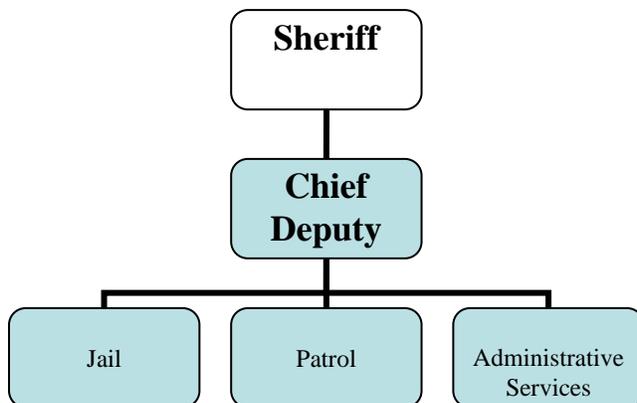


Figure 2-1 Current Table of Organization

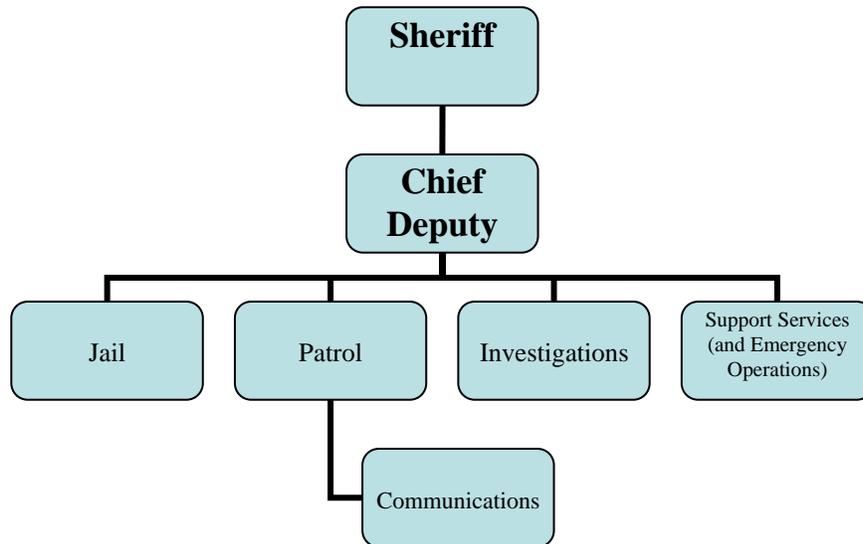
all other functions. In sheriff's offices there is usually a third commander for the jail function. In sheriff's offices, having all operational commanders report to a chief deputy or undersheriff is also common.

The Administrative Services captain currently oversees investigations, communications, support services, and all other agency administrative functions that are not explicitly under the control of another command-level officer.

It is recommended that the organizational structure be revised to add an additional captain's position. Management of the Investigative Division, its two components, along with the Communication Division and the Support Services Division is complex. These divisions have heavy workloads and many diverse responsibilities which are too much for one captain to adequately control. In addition, **the emergency management function should be placed within the command structure of the**

sheriff's office. To simplify management of these diverse activities and control of personnel it is recommended this portion of the JCSO be reorganized as displayed in Figure 2-2.

The newly defined Investigative Division would contain the Detective Division and the Drug Task Force. The Emergency Management and Support Division would consist of the emergency management function, JCSO records, bookkeeper, support services and the entire agency administrative support function.



In addition, the communications section would be moved from the administrative captain to the patrol captain's control. In reality, communications personnel are under the supervision of a patrol sergeant at all times other than normal business hours Monday through Friday. This change in organization should eliminate cross-divisional reporting and communications.

Figure 2-2 – Proposed Table of Organization

In recent years, and especially since the events of September 11, 2001, most law enforcement agencies have taken on an additional role, that of “emergency management.” The emergency management concept dates from the World War II and Cold War eras and was usually referred to as “Civil Defense.” While it is most visible nationally in the context of “Homeland Security,” at the local level this function is usually responsible for planning and overseeing the emergency response to a wide variety of incidents that are beyond what can usually be resolved by a routine law enforcement/fire/emergency medical services response. These can range from highway and rail incidents involving hazardous materials to natural phenomena like blizzards and flooding (with the latter being a matter of great concern particularly sensitive in Jefferson County). Until recently, in Jefferson County, this function was not administratively located in the sheriff's office. It is now a free-standing function within the JCSO with two civilian employees. In other agencies contacted, oversight of the emergency management function was given to a member of their command staff, usually at the captain/lieutenant level. **It is recommended that the current civilian emergency services manager should be retained, but that position should report to a member of the command staff and operational control of emergency management should belong to that command staff person with administrative support provided by civilian staff.**

Looking to the near future, the JCSO will also need to add an additional management layer. At present, the highest ranking on-duty person, other than during normal weekday business hours, is a sergeant. **A “shift commander” position, logically a lieutenant, would be needed for the**

afternoon and midnight shifts. To allow for full coverage, four persons would need to be placed in this position. A key benefit would be to permit patrol sergeants to spend most of their shift on the road acting as a field supervisor. Depending on the final structure determined, it may be possible to reduce the number of sergeants needed in both patrol and the jail.

Fiscal Impact. The only fiscal impact for the above recommendations would be for the creation of additional positions. The establishment of the fourth captain position would result in the need for an additional JCSO position since there would be no change in duties/responsibilities of any other agency employee. The current average salary for a JCSO captain is about \$70,000 annually. The longer-term implementation of the “shift commander/lieutenant” position is more difficult to estimate. The current annual sergeant wage is about \$60,000 annually. Assuming a lieutenant position would be about half way between captain and sergeant wages, the annual salary for this position would be about \$65,000. Where the new position resulted in the elimination of a sergeant, the incremental annual cost would be only \$5,000. Where this resulted in an additional staff position, the cost would be the full \$65,000 (salary only).

Review of Policies, Procedures, etc.

The JCSO needs to conduct periodic reviews of their rules, regulations and written policy. A suggestion is that this be done on an annual basis with varying cycles (3, 4, and 5 years) for different guidelines. A permanent committee of command, supervisory and operational personnel from all functional areas of the agency should be responsible for this with final approval the responsibility of the sheriff/chief deputy.

Mission Statements

There does not appear to be a formal mission statement for and of the operating divisions of the JCSO. Budget reports outline the primary responsibility of the sheriff as the protection and preservation of life, liberty and property. For example, it is common, and very appropriate for jails to define the reason for their existence as maintaining “safe and secure custody.” **It can often be a very valuable and worthwhile exercise to discuss and formalize a mission statement for the divisions** so that the best decisions may be made regarding the allocation of resources.

Increased Use of Technology

Most law enforcement agencies have moved away from the recording and transcribing of reports. **Report writing software, records management systems, computer-aided dispatch, and computer network management have been integrated by a number of vendors to provide a seamless electronic report writing, analysis, and retrieval system and it is recommended that the JCSO implement such a system.** Some vendors even include modules for jail-based records.

These systems provide greater report accuracy with built in error-checking routines and automated downloading of information. They also enable patrol deputies to spend more time in their patrol areas, provide them greater access to previous incidents in a given area, and make reports more immediately available to others within the agency and the public as well. Reports would also be more available to investigators and basic crime analytical functions would also be carried out automatically.

A committee from the JCSO and county MIS should begin work to determine specific needs and prepare a bid package.

Fiscal Impact. The cost of these automation systems varies considerably depending on the number of subsystems and modules that are included in the package and their compatibility with current data systems and available statewide systems such as those for crash reporting and traffic citation processing. Different vendors also offer options such as outright purchase of a turn-key package to leasing where an annual fee is paid, but any upgrades are automatically provided at no additional cost. Another cost unknown that could have a significant cost impact is compatibility of current computer systems in the Communications Center as well as in each patrol and support vehicle. Cost estimates would likely range from a few hundred thousand dollars to potentially over one million dollars. There is currently federal grant money available for improving local public safety communications systems so that they better support interoperability among all public safety agencies from local through state and federal participants.

Budgeting Processes

The JCSO currently uses a manual “bottom up” approach to prepare their annual budgets. In general, sergeants with specific areas of responsibility make their requests to their respective captains who then prepare divisional estimates that are then passed to the chief deputy for consolidation into the proposed annual budget for the agency. Since this process has been used for many years, support staff carries out much of the document preparation under the guidance of the supervisors. While not at all “high tech,” this process is efficient.

Some of the records and reports automation systems referred to elsewhere in this report do contain budgeting and financial planning modules. This capability should be considered as part of the overall evaluation of these programs. Alternatively, it is possible that a member of the county MIS department could develop a simple spreadsheet-based budgeting system that would mirror the current system. This would facilitate comparisons of alternatives and testing “what if” scenarios. If this capability is not available within the county, it should be available through local colleges. **It is recommended that through any of these means, the JCSO budgeting process be automated.**

Fiscal Impact. The cost for this could range from nothing (if this could be arranged as a college project) to being part of the overall costs of an agency-wide automation upgrade, to a maximum cost of under \$10,000 if stand-alone budgeting software were to be purchased.

Civilian Staff

As another longer term recommendation, **all civilian staff within the JSCD (excepting foodservice and bookkeeping) should be placed under the control of an office manager or administrator.** The manager would also service as administrative assistant to the sheriff and chief deputy. All other staff should be cross-trained in all support functions and occasionally rotate in their assignments. Job classifications would need to be adjusted so that all staff receive similar pay for similar work. This restructuring would probably have no fiscal impact.

General Recommendations

Due to the vast volume and diversity of the information received, the study team has taken the liberty of combining and summarizing suggestions made by employees with the JCSO with which the study team concurs. The study team submits them with our own recommendation to the Jefferson County Sheriffs Office to give strong attention to this input.

- Cross training of tasks among secretarial staff – a limited sense of territoriality among some support staff needs to be overcome by making all more aware of others' duties and emphasizing that all have an obligation to forward the work of the agency and ensure prompt and efficient delivery of services both within the agency and for the public (This is a near term recommendation until the more complete realignment of civilian staff recommended above could be implemented);
- Training in constructive communication, especially for supervisors;
- Team focus and building of teamwork with attention to ensuring support staff they are important and valued members of the agency;
- Standardization of methods of accomplishing similar tasks across divisions;
- Establishment of written policy for all classifications of employees, but particularly for civilians along with standardization of job descriptions;
- Regular meetings among staff, including JCSO Command Staff;
- A scanner, space saver filing system, photo room filing space, and more counter space, especially in administrative areas;
- An interview room in the lobby area (the need to conduct all citizen interviews in secure areas can be intimidating to many people);
- Improved training in UCR requirements; and
- Recognition through acknowledgement of work effort among staff by JCSO leadership.

Recent Wisconsin Legislation

The State of Wisconsin has recently enacted legislation that clarifies a law designed to authorize a city or village to abolish its police department if it enters into a contract with a county empowering the sheriff to provide law enforcement services throughout all of or in parts of the city or village.

Advocates of the change in state law say the clarification is likely to encourage communities to explore county law enforcement contracts as a way to save taxpayer dollars. The effect of this legislation is that cities and villages with a population of 5,000 or more no longer are required to have their own police departments. Such cities may now abolish their police department and contract with their county for full law enforcement services.

As previously indicated, Jefferson County does not have large population centers similar to surrounding counties. In spite of that fact, the population of Jefferson County has steadily increased. It is not likely that cities such as Racine, Kenosha, Janesville, Waukesha and Beloit will be disbanding their police departments. However, it is much more likely cities the size of Palmyra, Waterloo, Lake Mills and Johnson Creek with a much lower tax base and steadily increasing population, may find this an attractive way to avoid tax increases in the future. The JCSO already provides services, such as overnight patrol, to some of the smaller communities in the county.

The impact on the Jefferson County Sheriff's Office, should even one of these cities seek such contracting with the county, would be great. This trend should not be ignored. Clearly, a strong appeal is present for a small community to consider dissolving its police department in troubled financial times such as currently exists.

Reclassification of Positions

One of the specific requirements was to explore reclassifying some current deputy positions to potentially lower paying job classifications. This concept is explored in greater detail in the "Jail Division" section, but some aspects of this will be described here. Even though it is common for the JCSO to hold deputies over or call them in early to cover staffing shortages in both the jail and for patrol, in many cases these shortages are covered by moving deputies normally assigned to the jail to patrol for a shift (or vice versa) if the one division has more than minimum staffing on duty and the other would fall below.

The current method of having all deputies trained and qualified for both jail and patrol duties enables this, and if jail deputies were reclassified, this practice would be eliminated. This would result in increased overtime since off-duty staff would need to be called in for all cases where staffing fell below minimums.

The current approach of having all deputies able to fill both patrol and jail duties does save some overtime costs. One negative to this is that it frequently results in both the jail and patrol operating with minimum permissible staffing levels. This limits the ability of patrol deputies to perform self-initiated activities and proactive patrol. It also results in minimum jail supervision or inmates. Frequently operating at minimums is not a healthy situation.

Support Services

Due to current economic conditions, the strength of this section has been reduced from ten to six deputies. The primary impact of this reduction will be the elimination of deputies who perform screening activities at the entrance to the administration/courts section of the county building. While this staff reduction is permanent for the near future, recommendations relating to this division are made below.

Equipment. **Additional items of security adjunctive equipment should be purchased to facilitate building and courtroom security.** Purchase of these additional items of equipment will end the practice of deputies searching for this vital protective equipment that is often being used by other deputies performing similar functions. The needed items are:

- Five additional Taser units
- Three additional bailiff paging systems.

Court Entrance Security. If a decision is made that security needs to be returned to the courts entrance, the appropriate county entity (central administration, Clerk of the Court, judicial office, etc.) should contract with a private security firm for this service. Deputies assigned other activities in the county building can provide back up for these individuals via closed circuit television, radios, and bailiff paging systems.

Impact of Loss of Support Services Deputies

While a primary duty of the eliminated positions was county building entrance security, these deputies also carried out other tasks including process service. It is estimated that these deputies collectively performed about 4,000 hours on this service task. Since these services must continue, JCSO administration determined that they will be performed by patrol deputies. It is assumed that these service tasks will be performed in conjunction with all other patrol functions currently carried out by these deputies. It is plain from this that the patrol will therefore have about 4,000 hours less for those other functions.

Modeling can be done to show the impact of what effect such a time loss will have on the patrol function. In the model used to account for all on-duty deputy time, time is allocated to four general activities (this concept is discussed in greater detail in the Patrol Division section of this report):

- Calls for service;
- Administrative activities;
- Self-initiated activities; and
- Free patrol

The addition of the service function will not affect calls for service and the amount of time expended on those calls also should not change. The time expended on administrative functions

also will not change – the activities in this function are well-established by both practice and contract.

It is possible to allow for less time on self-initiated activities. This could be counter-productive for more than one reason. First, it would result in fewer traffic citations and consequently a loss in citation revenue. In addition, highway safety could be compromised as well as general public safety due to fewer contacts between deputies and suspicious persons.

It might seem that a reduction in “free patrol” time would be the logical category for reduction of effort. However, a decrease in free patrol time also has two negative consequences. The first would be increased call response times and the other would be increased patrol intervals. The latter means that patrol cars would be generally less visible on the roadways of the county.

Synergy of Recommendations

The evaluations of the various operating units of the JCSO were done in isolation. That is, when determining the number of deputies needed for the jail, the impact of these additional deputies on patrol or other agency functions was not considered. Similarly, in the investigations component, recommendations were made to increase staffing of both full time and part time deputies in addition to recommending that one captain’s position be devoted entirely to investigations rather than having investigations as only one of several areas of responsibility.

Additional staff in any area would have some modest effect in decreasing the need for additional staff in another area. At this time, it would be difficult to quantify these synergistic effects with any degree of accuracy or certainty. It is also recommended that prioritization of staffing needs should be a decision of the command staff of the JCSO.

Section 3: Patrol Division

Introduction

The primary purpose of this section of the report is to provide guidance in determining the number of deputies and sergeants needed for general patrol in Jefferson County. While the Jefferson County Sheriff's Office has statutory authority in all parts of the county, in practice the JCSO Patrol Division focuses its efforts in areas that are not served by local law enforcement agencies. However, JCSO deputies are often called upon to assist the local officers and to supplement them based on the nature of calls and whether or not local officers are on-duty. It should also be noted that, unlike most other Southeastern Wisconsin counties, Jefferson County does not contain a large city. In fact, its two largest communities are only partially in Jefferson County, so its patrol deputies effectively do patrol almost the entire county. JCSO deputies also provide back up and assistance as needed to members of the Wisconsin State Patrol in the county. All JCSO deputies primarily work out of the centrally-located Jefferson County Center in the City of Jefferson.

Jefferson County is divided into four patrol areas that roughly correspond to the four quadrants of the basically square geography of the county. When sufficient patrol deputies are on duty, one patrol deputy is assigned to each quadrant. When there are fewer deputies on duty, different beat configurations are used. These divide the county into three or even two beat areas of approximately equal size. However, given the rural nature of most of the county and the relatively few patrol deputies on duty at any given time, any on-duty deputy can be assigned to a call anywhere in the county.

Determining the number of deputies assigned to patrol is just one aspect of optimizing the delivery of police services to a community. Some of these other factors that should be included in delivering the highest quality service are:

- Scheduling;
- Beat Configuration;
- Deployment – (when and where should available staffing be used); and
- Response Times.

None of these other variables were included in the scope of this Staffing Needs Study. However, as mentioned above, beat configurations vary based on the number of on-duty deputies to better equalize call loads across all patrol areas; this beat flexibility also decreases response times to calls for service. Scheduling sworn staff in terms of the number of deputies assigned to a shift, day off patterns, shift length, etc. can be very complicated. This is also usually part of negotiated labor agreements between the deputies' bargaining unit and the sheriff and county administration.

Patrol Staffing

As of the date of this writing, the strength of the JCSO Patrol Division is 34. This includes deputies and sergeants, but does not include the captain who commands the division. The deputies work 8 hour shifts; the sergeants work 8.5 hour shifts. Comparing patrol staffing from one county to another is very difficult. The number and nature of incorporated municipalities within a county can have a significant impact on the number of patrol deputies needed. In addition, even the basic title of “deputy” can have different meanings and job descriptions in different counties. Some counties include process servers, prisoner transporters, and/or court security staff as part of their “patrol strength” since in many cases the individuals assigned to a specialized task may not spend all or even most of their time on that task; when they are not involved in the specialized assignment, they serve as general patrol deputies. In Jefferson County, “patrol deputy” generally refers only to those individuals who spend the full shift riding in patrol vehicles answering calls for service and providing proactive law enforcement functions. In Southeastern Wisconsin, the JCSO is among the minority in not having “part time” patrol deputies.

Allocation Methods

Most law enforcement agencies do not use any formalized method or model for determining patrol staffing needs. Staffing is based on historical practice, budget constraints, and apparent population and demographic changes in the community.

Alternative Allocation Methods. Every staff estimating procedure represents a compromise between two often opposing objectives. One objective is to use a procedure that is as simple as possible so it will be easy to use, easy to understand, and equally important, easy to explain. Another advantage of simple procedures is that they usually require only a limited amount of data and few calculations.

Another obvious objective, however, is to obtain staffing estimates that are as accurate as possible. With the development of powerful personal computers, police planners and analysts have constructed a variety of staff estimating procedures that rely on sophisticated mathematical and statistical methods (e.g., queuing theory). The price that is paid, however, for the use of more complicated procedures is the loss of some advantages associated with simpler methods. In general, more complicated procedures are:

- More difficult to use
- More difficult to understand
- More difficult to explain
- More data intensive; that is, they require more data that may be difficult and time-consuming to collect

Also, given the uncertainties that are often associated with policing workload data, analysts have not always been successful in demonstrating greater validity for staff estimates produced with more complicated procedures. One advantage, however, that more sophisticated methods

provide is greater transparency; that is, the ability to more easily see the impact of changes in data items, policies, and performance objectives on the final staffing estimate. Greater transparency allows the analyst to use the procedure to diagnose what data items, policies, and performance objectives have the greatest impact on staff requirements.

The discussion above about the relative merits of staff estimating procedures as they become more complicated suggests that there is no one “right” procedure for every law enforcement agency. Rather, each agency must find a staff estimating procedure that is best suited to its needs and capabilities. If it can be assumed that the quality of staffing estimates do improve as the models become more sophisticated, the decision of which procedure or model is best should be made based on staff capabilities, data availability, and the resources that can be committed to using the procedure. One common element to all staffing needs models is calls for service (CFS) initiated by the public.

Two alternatives are discussed in this section:

1. Use of the “Police Allocation Manual” (PAM) procedure
2. Use of the “Staff Wizard” allocation computer program

Police Allocation Manual (PAM). The PAM procedure was developed and field tested by the Northwestern University Center for Public Safety with a grant from the National Highway Traffic Safety Administration, U.S. DOT. The purpose of the project was to develop an easy-to-use, non-automated procedure to estimate patrol staffing. Three versions were developed for state, county, and municipal police agencies. An overview of the PAM project and methodology is presented in Appendix 3.1.

The conceptual basis for the PAM model is based on dividing the patrol hour into four parts:

1. Reactive time (responding to citizen-generated CFS),
2. Proactive time (community-oriented policing and officer-initiated CFS),
3. Administrative time, and
4. Free patrol time.

PAM uses considerable data about the agency to estimate the staffing need for each component. The data required includes CFS workload, personnel policies, operating practices, the geography of the jurisdiction, and a number of patrol performance objectives. A list of the data requirements for PAM is shown in Appendix 3.2. PAM staff estimates are obtained using eight worksheets that guide the user through each data collection and calculation step. The worksheets have been transferred to a spreadsheet to facilitate data entry and calculations.

The PAM procedure includes these advantages:

- PAM uses actual workload data for citizen-generated CFS to determine total obligated time.

- PAM uses the department schedule, shift length, and time off for benefits, non-patrol, and net comp to estimate the shift relief factor
- PAM allows the user to select several patrol performance objectives to use including:
 - Specification of a patrol interval objective as a measure of patrol visibility on different roadway types in the jurisdiction
 - Specification of the average number of minutes of administrative time per hour per officer
 - Specification of the average number of minutes of self-initiated time per hour per officer
 - Specification of the average number of minutes of community-oriented policing time per hour per officer
 - Specification of a percentage of time at least one unit will be available for response to an emergency citizen-generated CFS
 - Specification of an travel time objective to emergency citizen-generated CFS
 - Specification of an travel time objective to non-emergency citizen-generated CFS

The PAM procedure also addresses the limitations found in other staffing models:

- The procedure for determining the shift relief factor explicitly incorporates overtime worked and comp time taken
- The procedure explicitly incorporates data and/or performance objectives for:
 - Officer-initiated CFS
 - Community-oriented policing
 - Administrative activities
 - Free patrol time

Staff Wizard. The Staff Wizard computer program is distributed commercially by Corona Solutions, a software development and consulting company specializing in law enforcement applications. Staff Wizard was developed in the mid 1990's based largely on the "Patrol/Plan" software, a public domain computer program developed for the National Institute of Justice, U.S. DOJ by the Institute for Public Program Analysis. The principle developer of the Patrol/Plan software is a consultant for the current Jefferson County staffing needs project.

Conceptually, Staff Wizard is related to the PAM procedure. Staff Wizard divides the average patrol hour into three components: work time based on CFS, non-CFS time, and uncommitted time. Total time for all patrol work is based on:

- citizen-generated CFS rate (i.e., citizen-generated CFS per hour)
- percentage of CFS for each priority level
- percentage of CFS with one unit, two units, etc.
- average service time for 1st unit, 2nd unit, etc.

Used as a descriptive tool, Staff Wizard uses the workload information, the user-specified average number of non-CFS minutes per hour per unit, and the total number of units for patrol in a queuing theory model to estimate:

- total workload for patrol by priority level
- average minutes per hour per unit for:
 - citizen-generated CFS
 - non-CFS
 - uncommitted time
- average number of free units
- average queue (dispatch) delay
- saturation probability by priority level (the saturation probability is the likelihood that a call will have to be stacked)

The average number of free units and average queue delay are combined with the area of the patrol district and the average response speed to estimate the average response times by priority level.

Staff Wizard can also be used as prescriptive tool to determine the number of units that are needed to satisfy simultaneously a number of user-specified performance objectives such as:

- maximum saturation probability
- maximum average response time by priority level
- maximum average travel time by priority level
- maximum average queue delay by priority level

The queuing model utilized in Staff Wizard makes it a powerful planning tool. Unfortunately, the program has not expanded the basic capabilities of the original Patrol/Plan program. As a result, the Staff Wizard program has no mechanism for explicitly incorporating user data or performance objectives related to community-oriented policing or officer-initiated CFS. The times for both activities are buried in the time component identified as uncommitted time but there is no way to determine how committed time is divided among free patrol, community-oriented policing, and officer-initiated CFS. Since patrol interval frequencies are calculated assuming that all uncommitted time is free patrol time, the patrol interval estimates are likely to be unrealistically low.

A second limitation of Staff Wizard is the relative lack of transparency when compared to the PAM procedure. While the queuing model that forms the basis of Staff Wizard is a well-accepted planning tool, since Staff Wizard is a commercially distributed produce, Corona Solutions has structured the program so that the user does not have the ability to “raise the hood” of the program and see exactly how each component is calculated. In contrast, the availability of PAM in the public domain, in both written form and in a spreadsheet, provides the user with complete visibility about each calculation and outcome.

A third consideration in the use of Staff Wizard is the fact that municipalities that are interested in using Staff Wizard only have two options; either purchasing the program or purchasing consulting services from Corona Solutions.

- Purchasing the program. The cost of buying Staff Wizard depends on the size of the jurisdiction. Additional costs may be incurred for: (1) integrating the program with the JCSO CAD system, (2) training (\$3,900 for two days of on-site training), and (3) maintenance (15% annually of the original purchase price including upgrades and technical assistance).
- Consulting services. The cost of securing consulting services depends on the nature and extent of the services requested.

Recommendations. Both alternatives presented above are viable options for providing the JCSO with reliable staffing estimates for patrol. However, the PAM procedure appears to represent the best choice for these reasons:

- The current PAM spreadsheet, built using the eight worksheets in the original PAM documentation, provides the user with complete transparency about each calculation.
- Acquisition costs for the PAM model are minimal.

PAM Staffing Estimates

This section is divided into three parts. The first briefly describes the modifications and improvements to the PAM procedure used for the Jefferson County Sheriff's Office. The second and third parts present staffing estimates for patrol deputies.

NUCPS often provides consulting services where the PAM model is applied to determine patrol staffing needs. Each time the model is used it is usually updated and/or expanded to meet specific client needs. Recent modifications incorporated into the PAM model as used for the JCSO include:

1. An additional input data item has been added to permit the user to indicate the percentage of time each supervisor spends on administrative activities. This value is used in PAM to calculate an "effective" number of deputies (or span of control) that can be supervised. The effective number of deputies is always less than or equal to the ideal number of deputies per supervisor supplied by the user. The effective number of deputies is used in the program to determine the total number of supervisors required. As a result, the number of supervisors required increases as the percentage of time spent on administrative activities increases.
2. The input data items for total benefit time off per year per officer has been expanded to explicitly identify vacation time, holiday time, sick leave, and all other benefit time off.

3. Three input data items were added to estimate the net compensatory time off per year for each officer. The three data items are:

- Overtime hours worked per year per officer
- Percentage of overtime worked on patrol per year per officer
- Comp time hours taken per year per officer

Patrol Officer Staffing Estimates. PAM estimates for the number of sergeants and deputies required for patrol for the county are shown in Table 3-1.

Table 3-1

Recommended Patrol Staffing, Number of Sergeants and Deputies

	Patrol	
	Current*	PAM
Sergeants	6	6
Deputies	34	38
Total Sworn	40	44

* - Actual patrol staffing level for most of calendar 2007 (not necessarily number of deputies actually authorized for patrol)

The input data values for PAM are shown in Appendix 3.3 along with values for Walworth County for comparison purposes. The PAM spreadsheets will be provided to the JCSO in electronic format.

Fiscal Impact. The average annual cost for a JCSO deputy is about \$49,000; a new hire would certainly earn less. While the addition of new deputies would not eliminate all overtime, it should decrease the current overtime burden. It is estimated that if all four recommended positions were filled, one of those positions would be covered by overtime savings. In addition, raising staffing levels above minimum would create more unobligated time for patrol deputies which should result in more traffic citations.

Using the PAM Procedure for Forecasting Future Staffing Needs

Forecasting future patrol staffing needs is possible with the PAM procedure due to the number and variety of input data items. Among the variables that can be used for forecasting are:

- Calls-for-service (CFS) – The number of CFS can be used in two ways:

1. A time series of annual CFS total for the jurisdiction can be used to estimate CFS growth rates and predict future CFS totals. These predictions can be used in PAM to predict future staffing needs.
 2. Since CFS totals tend to be highly correlated with population, a time series analysis of population growth in the jurisdiction can be used to estimate future CFS totals and used directly in PAM.
- Personnel benefits – Changes in the amount of benefit time off and/or regularly-scheduled time off due to a schedule change can be easily put into PAM to assess the impact on staffing.
 - Roadway miles – As more areas within the county are developed and the number of street miles increases, the impact on patrol staffing and patrol performance can be investigated with PAM.

Although each of the input data items identified above can be used as a single forecasting variable, regional growth is usually characterized by changes in multiple community indicators. PAM offers the advantage of allowing the user to modify and investigate the impact on staffing with estimates of the changes in multiple variables.

One difficulty in using the PAM model in Jefferson County is the number of data elements that needed to be estimated or had to be hand-searched through the current JCSO records system (refer to Appendix 3.2 for a list of the data elements needed to utilize the PAM model). The JCSO needs to install and use a modern records management system (RMS) that can automatically determine many of the PAM elements as well as provide better information for crime analysis and provide much better information to deputies and investigators in the field.

Parks Patrol-Related Recommendations

Over the course of a year, and looking at all parks in the county, the number of calls for service in the parks is comparatively small. Under current economic conditions, assigning any deputies to full-time park patrol is not cost-effective. **However, if specific park patrols are still desirable, the county parks department should contract with the JCSO for a specific number of patrol hours.** Part-time deputies should be utilized for this activity. The average cost for a part-time deputy is under \$16/hour and this cost would be bourn by the Parks Department budget.

Section 4: Jail Division

The Jail Division of the Jefferson County Sheriff's Department operates continuously, 24 hours per day, 365 days a year. The current facility was completed in 1991 and is staffed by one captain, six sergeants, twenty-nine sworn jail deputies and nine civilian employees. Medical services are provided to the inmates through a combination of a contracted healthcare agency and the use of nursing staff from the county health department. Food service is operated in-house and staff with a combination of county employees assisted by inmate workers. The rated capacity of the jail is 214 beds divided between 116 secure detention beds and 88 dormitory style beds for Huber (work release) inmates. Although the jail has in the past leased beds to the state and federal prison systems as well as surrounding counties, the increased in-house population as well as the completion of several major building projects in other counties has greatly reduced these types of contract housing.

The average daily population (ADP) in the jail during 2007 was 194 inmates consisting of both pre-trial and county sentenced inmates. This is up from an ADP of 183 in 2006 and below the current year-to-date ADP for 2008 of 208 inmates. Currently, approximately 9.6% of the jail population is pre-trial status, 60% are serving a sentence in the jail and the remaining are being held on a combination of probation holds, state sentences or temporary holds for other agencies. Approximately 17% of the population is female. A breakdown of inmate classification types is outlined in appendix 4.15.

Review of best practices for determining the staffing levels of corrections personnel.

The most commonly utilized and accepted method in determining appropriate staffing levels for correctional facilities is to identify staffing patterns within the correctional facility and develop a shift relief factor based on the number of net annual work hours for each category of employee. This procedure was developed through the National Institute of Corrections (NIC) and has become the standard practice for correctional facilities.

Information obtained from other sheriffs' departments will be used to a limited extent in this study but not for the purpose of determining appropriate staffing to inmate ratios or staffing to supervisor ratios. Using a staffing ratio to compare one facility to another will produce inaccurate results. There are too many differing factors from one facility to another making difficult, if not impossible to compare the two. For example, a facilities design plays a major role in the amount of staffing required. A facility with smaller housing units will require more staff to supervise the same number of inmates in a facility with larger housing units.

Supervisor ratios will also vary from facility to facility based on different responsibilities assigned to the jail division. In some facilities for example, jail staff are responsible for external transportation of inmates and have supervisors specifically assigned to this task. In other facilities, jail officers are responsible for the supervision and transportation of inmates to and during court appearances and have supervisors specifically assigned. Finally, the number of

days staff is available will vary from facility to facility based on a number of factors including schedules, use of benefit time and training.

Review of current practices in the JCSO Jail Division

Data regarding current practices of the Jail Division was obtained from the following resources:

- Interviews were conducted with senior staff members responsible for the leadership, management and implementation of operations for the Jail Division. Interviews consisted of face-to-face contact, and extensive exchange of email.
- A tour of the facility was conducted with the Jail Division captain.
- Data requested from jail staff included:

1. Staffing

- Organizational Chart
- Number of staff assigned to Corrections Division by category
 - Part-time / full-time
 - Sworn / civilian
 - Number assigned to each shift
 - Number and rank of supervisory / line staff / administrative
- Current schedule(s) used
 - A copy of the schedule for a complete rotation period
 - Fixed / rotating days off
 - Shift hours
- Summary of benefit days taken
 - Vacations
 - Compensatory
 - Holidays
 - Sick days
 - Bereavement
 - Disciplinary days (suspensions)
 - Military days (number of staff in reserves)
 - FMLA days
 - Injury days
 - Any other category of time off?
- Training days taken
- Overtime usage

2. Directives / Policies

- Policy and procedure relating to the Jail Division
- Applicable state standards
- Current or planned accreditations (i.e. ACA/ NCCCHC, etc.)
- Copies of applicable labor contracts
- Personnel policies relating to benefit time accrual / use (sick policy?)
- Policies / statutes relating to mandated training

3. Administrative

- Copy of Jail Division approved budget
 - Amount allocated for regular salaries and wages
 - Amount allocated for overtime
- Copies of annual reports for Jail Division

4. Operations

- Management philosophy
 - Direct supervision (all/part of facility?)
 - Podular remote supervision
 - Linear
- Work release (Huber), community based programs, electronic monitoring?
- Inmate population data
 - Average daily population
 - Peak population
 - Average daily bookings / releases per shift
 - Do you hold/process prisoners for other agencies?
 - Breakdown of average/typical inmate category
 - Pre-trial
 - County sentenced
 - State sentenced awaiting transport
- Facility rated capacity / design capacity
- Different housing capacities and staff / inmate ratios for each
- Male / female inmate ratios
- Policies regarding cross gender supervision
- Post descriptions
- Inmate programming / activity schedules
- Prisoner transportation procedures and responsibilities
 - Who transports prisoners to and from the jail?

- Who provides security for inmates in the hospital?
- History of completed suicides (if applicable)
- History of major facility incidents
- What type of jail management system (JMS) do you use?
 - Is it integrated with other divisions, or stand-alone?
- Map of facility

5. Contract Services

- Food service contract
- Medical / mental health contract
- Maintenance / janitorial services contract

Current Jail Division Activities – Post Descriptions / Staffing Patterns

The roles of jail staff are typically expressed as posts for both supervisors (jail sergeants) and line staff (jail deputies). A staffing pattern identifies where staff members are assigned to work, including time and location and function. Due to the static nature of many assignments within a correctional facility, staffing needs are determined to a great extent by the number of posts rather than specific workloads. The following is a brief description of each post along with some of the main responsibilities of staff assigned. The overall staff coverage plan is summarized in Appendix 4.1. A housing capacity and supervision summary is outlined in Appendix 4.2.

Supervisory Staff (Jail Sergeants)

Sergeants assigned to the Jail Division report directly to the jail captain and according to their job description are responsible for the following:

- Supervision of all deputies assigned to the Jail and Huber Division, K-9 program, courtroom deputies, jail clerks, boat/snowmobile patrol and department dive team.
- Completion of employee evaluations.
- Staff scheduling.
- Plan, coordinate and implementation of ongoing training activities as mandated by state standards.
- Supervision and implementation of the Jail Field Training Program
- Assist jail deputies in their daily activities
- Prepare and communicate daily shift briefings

- Participate in yearly budget preparation
- Coordinate and supervise inmate programming activities
- Assist in the review, formulate and implement policy and procedures
- Review, investigate and respond to complaints from the public and/or other agencies.
- General supervision of jail maintenance and janitorial activities, including the ordering of supplies.

Because sergeants assigned to the jail must be able to move freely throughout the facility to supervise operations and respond to problems, they cannot be assigned to a static post. There is currently one post identified requiring a supervisor on each shift, seven days a week. Sergeants assigned to the Jail Division do not require break relief; however the position must be filled if staff assigned to this position are away (Away Relief).

Jail Deputies

Deputies assigned to the Jail Division report to the jail sergeants. According to their job description and based on their particular post assignment, they are generally responsible for the following:

- Maintain the security of the jail through physical patrols and video surveillance.
- Conduct regular cell inspections and searches within the facility.
- Conduct strip searches of inmates coming into the facility for processing.
- Recognize potential inmate conflict and intervene in disputes.
- Discipline inmates when appropriate and initiate state charges when appropriate.
- Process incoming inmates through the jail management software (JMS).
- Complete initial medical screening of incoming inmates.
- Maintain accurate documentation regarding inmate activities, maintenance issues and inmate discipline.
- Accurately document medical issues of inmates, including examination and verification of medications brought in by inmates.
- Dispense and document medication as directed by the jail medical staff.
- Render aid and medical assistance to inmates as needed.
- Receive record and route incoming monies.
- Distribute inmate grooming items, uniforms, linen, request slips, commissary slips and mail.
- Respond to inmate request slips.
- Transport inmates to and from appointments.

- Transporting inmates to and from physicians and hospitals, both locally and to the Madison area.
- Escorting inmates to court. (During the 1st and 2nd shifts, there is typically a high volume of court activity.)

Within the Jail Division there are currently four distinct post assignments identified:

Central Control Post – Responsible for monitoring cameras and all doors throughout the facility. Perimeter security and internal circulation must be controlled at all times. Central control is staffed with one jail deputy on each of the three shifts seven days a week. This position requires both break relief and away relief.

Housing Pod Post – Responsible for monitoring inmate activities within each housing unit. The pod officer post is responsible for control of local doors within each housing section. The Housing Pod post is staffed from 5:00 a.m. to 11:00 p.m., seven days a week and requires both break and away relief. From 11:00 p.m. until 5:00 a.m., audio duress and security cameras are transferred to central control where they are monitored. Physical walk-through rounds are completed at a minimum of hourly.

Huber Post – Responsible for monitoring inmate activities within each Huber dormitory area. Responsible for processing individuals into and out of the Huber program as well as checking them in and out based on individual schedules and pass privileges. This post must be staffed 24-hours a day, seven days a week and requires both break and away relief.

Book Rover Post – Responsible for the intake and release of all prisoners brought into the facility. Intake procedures include the initial pat-search of prisoners, processing through the jail management software (JMS) system, fingerprinting and changeover. Deputies assigned to this post are also required to ensure proper arrest documentation is provided giving the sheriff's department legal authority to hold the individual. Although peak periods and numbers of admissions vary greatly and are always difficult to predict with a degree of accuracy, data collected shows an average of 10 bookings and releases each day. The afternoon shift has the bulk of bookings with almost 46% of the total whereas the day shift and midnight shift each handle approximately 29% and 26% respectively. Appendix 4.11 provides a summary breakdown of booking activity.

When not processing prisoners, deputies assigned as book rovers are responsible for transporting inmates throughout the facility, delivering meals to the housing units, responding to emergency situations as they arise. These positions do not require break relief; however they do require away relief.

Current Schedule Rotation

Both jail deputies and jail sergeants work the same schedule rotation. Jail Deputies work one of three 8-hour shifts and Jail Sergeants work one of three 8 ½-hour shifts. Deputies may bid to work on a different shift based on their seniority, but do not rotate from shift to shift on a scheduled basis. The current schedule, commonly referred to as a 5/2-5/3 rotation, consists of 5 working days followed by 2 off days then 5 working days followed by 3 off days. It is a very commonly used and popular schedule within law enforcement and corrections.

The 5/2-5/3 rotation has a total of 14 distinct patterns or groupings. In other words, 14 deputies could have different sets of days off. The 15th deputy scheduled would have a duplicate schedule to one of the original 14. This particular schedule takes 105 days to repeat. During a 28-day (Garcia) cycle, the number of hours worked range from a low of 144 to a high of 160, well below the limit of 171 requiring time and a half compensation. Appendices 4.3 and 4.4 illustrate the current schedule being used.

Shift Relief Factor

A shift relief factor (SRF) is an expression of the total number of hours that need to be worked at one post divided by the number of yours that the “average employee” in the job classification assigned to that post is available to work. A shift relief factor identifies the number of hours that staff who work essential posts are actually available to work. It accounts for the use of leave, training time and other factors such as vacancies, which result in staff not being available to work a post. A shift relief factor, when combined with an appropriately documented staffing pattern provides a way to move from the number of people who are needed on one day to the number needed for 24/7 coverage.

Because there are some posts that may not be staffed every day or on every shift, different shift relief factors must be developed. Additionally, there will be some posts that do not need an availability factor. For example, if a post does not need to be filled if the deputy calls in sick or is on vacation, then a shift relief factor is not necessary.

Appendices 4.5 and 4.6 illustrate how the shift relief factor is computed for the various position classification factors. Appendix 4.7 summarizes benefit time taken during 2007 and year-to-date 2008 which is used in calculating the shift relief factor.

Jail Sergeants – work a 5/2–5/3 schedule and do not require relief for meal periods or breaks. Their position does require backfilling for regular days off, vacation scheduling and other absences.

Jail Deputies – work a 5/2–5/3 schedule and are either assigned to a static post which requires relief for meal periods and/or breaks as well as days off, or to a roving type of post which will require backfilling for days off, but not for breaks or meals.

Observations and Recommendations

Jail Division Mission Statement – There does not appear to be a formal mission statement for the Jail Division. Budget reports outline the primary responsibility of the Sheriff as the protection and preservation of life, liberty and property. It is common, and very appropriate for jails to define the reason for their existence as maintaining “safe and secure custody”. It can often be a very valuable and worthwhile exercise to discuss and formalize a mission statement for the Jail Division so that decisions made regarding allocation of resources. For example, the Jail Division currently has a variety of educational and religious programming available for the inmate population. The importance and priority of providing inmates with educational and rehabilitative programming will depend to a great extent on the resources directed to it.

Staffing Coverage and Current Schedule Rotation - **Based on the current 5/2 – 5/3 8-hour schedule rotation and position classification factors there are 34 deputies required to fill all established posts in the jail on a 24/7 basis. There are currently 29 deputies assigned to the Jail Division requiring that 5 positions be backfilled** with either overtime hours or by drawing upon staffing from other divisions.

The shift relief factor for jail deputies is relatively high, requiring almost 2 (1.99) deputies to fill each identified post. Aside from having a lot of benefit time available (see appendix 4.10), policies regarding the use of sick time can have a great effect on how it is either used or not used. For example, a “use it or lose it” policy for accumulated benefit time often creates a greater use of benefit time because employees feel that they are entitled to the benefit time and aren’t willing to lose it because they aren’t using it. **The establishment and enforcement of policy designed to prevent abuse of sick benefit leave can also have a great impact on its use.**

There are two ways to lower a shift relief factor (SRF); reduce the number of posts that staff are assigned to, or increase the amount of time that staff are at work. Based on observations, it appears that with the current number of inmates housed in the jail there are no opportunities at this time to safely reduce the number of post assignments. Based on the current schedule, it does appear that **some efficiency could be gained by adjusting some of the female deputies’ rotations to provide more coverage on the afternoon shift.**

Staffing Coverage and Proposed 12-hour Schedule Rotation – Appendix 4.12 illustrates a sample 12-hour schedule rotation. This particular schedule involves four groupings of staff assigned to two shifts. In this example, staff work 2 days followed by 3 days off; work 2 days followed by 2 days off and finally work 3 days followed by 2 days off. On this schedule staff work 168 hours within a 28-day Garcia cycle. Because of the differences in the length of each shift (12-hours versus 8-hours), it is difficult to accurately predict the use of benefit time. For example, union contracts describe benefit time as accrued and taken in days. A determination and agreements would need to be established whether a vacation day now equals 12 hours or remains 8 hours. Likewise, it would be logical that if an employee calls in sick, they would be utilizing 12 hours of sick time and would not report for duty after using only 8 hours.

The shift relief factor created by this particular rotation and using the same position classification factors as the 8-hour schedule is 2.98 requiring a total of 36 staff members to fill all established posts. This would require some, although less additional staffing or the use of overtime to backfill. All things being equal without considering any classification factors, a 12-hour schedule would require 2.0 deputies to fill each post for one shift and 4.0 to fill the post for two shifts (24-hour period). The current 8-hour schedule would require 1.47 deputies to fill each post for one shift and 4.41 to fill the post for 3 shifts (24-hour period). It would appear then that going to a 12-hour schedule would require less staffing, however the exact amount would need to be determined after reliable position classification data can be gathered. Additionally, since the housing unit is not staffed on a 24-hour basis, some efficiency may be gained by adjusting the use of manpower during the midnight hours of the shift.

Use of Overtime – Last year approximately \$130,500 in overtime dollars was spent to staff the jail. Much of this is due to the shortage of staffing outlined above and the need to keep positions staffed on a 24/7 basis. Although there will always be a need for a certain amount of overtime, some reductions may be gained by hiring additional employees to fill some of the positions currently being staffed with overtime dollars. The recommendation would be to start small with one new deputy to determine how much overtime is reduced as a result.

Staffing Classification – Currently, jail deputies are all sworn and have the same arrest powers as those assigned to other divisions within the sheriff's department. There are typically three different staffing classifications utilized within jails. Employees assigned to jails may be sworn and considered in the same classification as highway patrol. They may be classified as corrections officers or jail officers in which case they are considered 'civilian' employees with no arrest powers outside of their particular job assignment. The third classification of employee would be a civilian 'clerk' type of position. These position classifications are used in a variety of combinations in different counties. The costs involved with each classification of employee are based on salary, pension and amount of training. Aside from the tangible costs, there are a number of significant factors that must be considered.

- Changing the classification of staff assigned to the jail would be permanent.
- The department would become divided with the establishment of a lower paid, lesser trained classification of employee.
- Due to current labor agreements, changes in classification would have to be 'grandfathered' in over a period of time. Any cost savings would not be seen for several years.
- Cross utilization of employees from other divisions would no longer be possible.
- There is a possibility of utilizing a clerk classification of employee for certain tasks not directly responsible for the supervision of inmates. Some departments for example utilize clerks for the processing of inmates into and out of the facility. Structural changes would be necessary to enable civilian staff to process inmates and remain safe.

Inmate Population – As mentioned above, decreasing or combining established posts is one method of reducing the number of staff required to operate the jail. The Jefferson County Jail is

at its capacity with no foreseeable relieve coming. Aside from the safety concerns of not being able to properly classify inmates because of a lack of space, a crowded jail creates tension with staff increasing the use of sick time. In addition, the ability of the sheriff's office to generate additional revenue through the leasing of beds is significantly reduced or eliminated.

The Jefferson County Jail is fairly unique in the makeup of the inmate population. Typically the number of inmates being held on a pre-trial basis is significantly higher than those serving a county sentence. At the Jefferson County Jail, however the opposite is true. Approximately 9.6% of the population is pre-trial while almost 60% are serving some type of sentence in the jail (Huber/jail). Inmates serving a sentence in the county jail are generally considered to be of the lowest risk from a classification standpoint. These inmates have generally committed misdemeanor offenses of such a nature that the sentence they received was less than a year. It would appear that this would open up opportunities for the sheriff's department and the judiciary to explore alternatives to incarceration such as electronic monitoring or expanded use of the Huber (work release) program. Caution should be used in determining what programs are implemented and what inmates participate in those programs. Individuals must be carefully screened to determine if they are appropriate to participate and would not pose a danger to the community.

There are a number of ways to set up and administer electronic monitoring programs as well. For example, the can be set up as sentencing alternatives to give judges the option of sentencing someone directly into the program. They could be set up as a step down program for those who have completed a portion of their sentence. Some communities have implemented programs for pre-trial inmates who may not be appropriate to hold in jail, but too much of a risk for the judge to let out on bond without supervision. Regardless of how these programs are set up, care must be taken to ensure they don't 'widen the net' as opposed to actually reducing the number of inmates housed in the jail. Net widening occurs when inmates are sentenced or placed in the program to a higher degree of supervision than they would have been prior to the program being established. In other words, if a judge places someone on electronic monitoring that prior to the program being established he would have just released on bond, use of the program does not reduce the number of inmates housed in the jail.

Section 5: Investigations Division

Introduction

The staffing, the internal allocation and the deployment of criminal investigative and narcotics investigative personnel are issues that have been debated and studied for many years. For such law enforcement components to be most effective, investigators are required to be available to promptly respond to crime scenes. They must have the time to conduct initial and follow-up investigations without being overburdened by an oppressive caseload or by other tasks which are somewhat related to their function and duty but have become very time consuming and arduous due to agency practice or other causes.

Determining the “appropriate” caseload for investigators is complicated by concerns about local crime patterns and clearance rates, the unpredictability of crime and the varying complexity of different categories of crime. In all but the largest law enforcement agencies, criminal investigators receive their case assignments from their immediate supervisors based upon:

- The types of crimes that have recently occurred;
- How many investigators happen to be on duty and available;
- Trends of specific crime(s) that have developed; and
- If possible, what special expertise and talent a particular investigator may possess in his or her ability to bring a case to a successful conclusion, clearance and prosecution.

Considerations and factors such as repeat offenders, public perceptions of crime and community expectations also impact on the work of the criminal investigator. As a result, the importance of such “soft” factors as community expectations has led most knowledgeable observers and practitioners to conclude that determining the strength and staffing levels of an investigative unit cannot be done by using a simple formula based on the number of cases. Simply stated, a higher or increasing crime level does not indicate a need for more investigators and, likewise, a lower or decreasing crime level does not indicate that fewer investigators are required or acceptable. It is also recognized that the application of even the most excellent of patrol resource models, such as the Police Allocation Model (PAM), cannot correctly or accurately determine the precise number of criminal investigators appropriate for a law enforcement agency. A primary reason for this is that, for the most part, investigators work in a highly reactive mode. Although somewhat simplistic, it is fair to say that patrol is driven by the need for law enforcement presence, visibility and response to calls for service. Detectives are driven by the occurrence of crime and the development of information.

During the data gathering phase of a recent and similar law enforcement staffing analysis, this study team contacted law enforcement agencies of a variety of sizes. These agencies were requested to provide their criminal investigator staffing level. They were also asked why they established the particular level. Some of these agencies state that it is their practice to maintain a 10:1 ratio of patrol personnel to investigators. None of these agencies was able to present any sound reasons as to why they have established such a ratio, beyond saying “that’s the way it has always been and we’ve been following that number” or “someone else uses that number, so we

do as well” or will report that budgetary constraints do not allow the number of personnel that we “really” need to do the job.

Determination of the adequate staffing and deployment of investigative personnel depends, not only on the number of cases, but also on the types of criminal offenses and the time required for the investigation for each type. Homicides and sexual assaults, for example, require more investigative time than do less serious offenses. As a result, the caseload, or the number of cases, may not be a good indicator of staffing needs. Thus, both the number of cases by type and the expected time required for each type are workload factors that need to be used to determine the appropriate allocation of personnel within an investigative unit.

There is little question that the challenges of successful criminal investigation have increased in the recent past. Only a few years ago, law enforcement agencies were not confronted with the investigation of:

- The appearance and spread of “home” laboratories manufacturing controlled substances.
- Computer crime
- Identity theft
- Increased child pornography
- Cellular phone usage in criminal activity
- Terrorism
- The appearance and increase of gang activity
- Prescription drug abuse (The Jefferson County Drug Task Force is currently experiencing a significant rise in prescription drug abuse in the area)

In addition to the impact of related tasks on the availability of investigators and the vast amount of time required to investigate certain crimes when they do occur, the study team has made careful examination of existing investigative procedures and policy. Such an examination is critical due to the fact that procedures, policy, law and practice drive the investigative process. For example, inappropriate or ineffective case screening or case processing can increase the workload and reduce the efficiency of an investigative unit.

Review of Current Practices in the JCSO Investigations Structure

The criminal investigation component of the Jefferson County Sheriff’s Office (JCSO) is included in the Investigative Division. This division consists of two subcomponents: the Detective Division and the Drug Task Force. The Investigative Division is one of three divisions which are under the administrative leadership of a commanding officer who holds the rank of captain. This captain also heads the Communication Division and the Support Services Division and reports to the sheriff through the chief deputy.

Administrative support is provided by a secretary, a receptionist, a full time clerk and a part time detective secretary. An additional secretary is assigned to the Drug Task Force of the Investigative Division. The Drug Task Force secretary is located at the headquarters of the Drug Task Force which is located away from the JCSO.

Detective Division

The Detective Division (DD) is comprised of one sergeant who is responsible for supervision of six detectives. Additionally, the sergeant manages case assignment, case management tasks and myriad of other duties consistent with criminal investigation. Four of these detectives are assigned to the day shift and the remaining two are assigned to work from 2:00 p.m. to 10:00 p.m. All detectives work Monday through Friday and are off on weekends, unless they are called up for duty. Whenever a detective is required to be on call for a weekend, and is required to carry a pager or leave a phone number where he can be contacted, the detective is entitled to on call pay in accordance with existing labor contract. Detectives are called up to work after hours based on a supervisor's recommendation as to the time of the call up or the nature of the case. Work performed by detectives who report for duty on a call up basis is compensated at overtime rates.

The responsibilities of detectives assigned to this division include, but are not limited to, conducting initial and follow-up investigations of suspected criminal activity, interviewing witnesses and suspects, preparation and execution of search warrants, preparation of reports for criminal complaints, collection and preservation of evidence and many other duties which are related to criminal investigation. One of the detectives is designated as a juvenile detective handling all juvenile matters

Promotion. The rank of detective is a promotable position. A deputy must have a minimum of three and one-half years of law enforcement experience with the JCSO. A deputy may be credited with additional time of service on a one-time use basis as follows:

- Associate Degree = 6 months additional time of service
- Baccalaureate Degree = 18 months additional time for service

The promotional process is guided by existing civil service ordinance.

Operations. The Detective Division investigates a variety of major crimes and major incidents as well as non-traffic homicides and other non-traffic deaths. They gather information related to crimes, as well as criminal intelligence information. The average active caseload of each detective at the JCSO is approximately 17 to 20+ cases. This caseload varies from week to week and even day to day.

In the vast majority of initial criminal investigations, detectives are not routinely dispatched to a crime scene. Agency practice is that uniform deputies are dispatched as primary responders. When patrol deputies determine that a crime may have occurred, and that the services of detectives are needed, they confer with their supervisor who will then contact the DD supervisor and request such assistance. Detectives who respond will then take the lead in the investigation of the crime(s) with the assistance of the patrol deputies. They will interview victims and witnesses, gather evidence and conduct whatever initial, and follow up, investigation they are able to develop.

In general, detectives will be summoned to investigate most burglaries and robberies, all homicides and all dead bodies. Additionally, they are called upon to investigate major arsons,

sexual assaults and some other offenses. They will gather and process the vast majority of evidence recovered at crime scenes. The tasks of evidence gathering, packaging, processing and storing consume an inordinate amount of detective time. Two of the six detectives assigned to the Detective Division are designated as evidence officers. Additionally, both Detectives assigned to the Drug Task Force expend a considerable amount of time performing similar tasks, as is displayed in the following table.

TASK	No. of Personnel	Total Hours per Month	Rank
Arson Task Force	1	5	Detective
Autopsy Monitoring	6	10	“
CVSA Operation	1	5	“
Evidence Processing	6	40	“
Evidence/Property Officers	2	80	“
Labor Union Work	1	.5	“
Prisoner Transports	6	12	“
Stepwise	2	20	“
SWAT Calls & SWAT Training	Variable	Variable	“
SWAT Negotiators	3	2	“
Tours & Presentations	2	1	“
White Collar Crime	2	40	“
*Equipment Maintenance	5	8	Detective/Sergeant
*Writing Warrants, Seizures and Subpoenas	4	40	Detective
*Cellular Phone & Computer Forensics	1	10	“
*Meetings and Training	5	20	Detective/Sergeant
*Other Agency Assists	5	40	“
*Byrne Grant Funding Activities	1	100	Sergeant
*Informant Development	5	60	Detective/Sergeant
*Evidence Processing	5	20	“
*Property Officer	2	40	Detective
*SWAT Calls & SWAT Training	3	10	Detective/Sergeant
*Presentations	5	10	“

* denotes Drug Task Force personnel

Table 5-1

The Jefferson County Sheriff’s Office also receives requests for assistance and expertise from other law enforcement agencies in the county. These requests normally involve assistance in major crimes, such as homicides or requests for resources and equipment. These requests are usually minimal and are approved or disapproved by the commanding officer. Such requests have averaged 17 per year over the past two years. (Requests from other agencies made to the JCSO for Computer Voice Stress analysis services are increasing) At times, and dependent upon the size and complexity of the investigation, the Detective Division may assume full investigative responsibility over a criminal case in order to better coordinate investigative actions.

Jefferson County Drug Task Force (DTF)

The Jefferson County Drug Task Force (DTF) is structured as a joint multi-jurisdictional venture comprised of the JCSO and seven other local municipal law enforcement agencies established by a multi-jurisdictional agreement. The County District Attorney's Office also participates with a staff assistant district attorney serving as an associate in an overseeing capacity of the DTF. The DTF is guided by a steering committee which, in addition to other matters, serves as an internal decision maker, a conflict resolution body and a catalyst between all agencies involved.

The lead agency is the Jefferson County Sheriffs Office. Supervision of the Task Force is effected by a full time JCSO detective sergeant. The Task Force has affiliated with four nearby counties, all of which form the South East Area Drug Operations Group (SEADOG).

It should be noted that there is not a consistent level of participation in the DTF from the standpoint of personnel staffing. Assignments vary based upon the needs and availability of all agency participants. Assignments range from full time to part time to a limited term employee.

In general, personnel assigned work Monday through Friday from 8AM to 4PM. Hours sometimes vary based on need and investigative development. Personnel report for duty at an independent, county-owned facility in Jefferson County and use this facility as their headquarters. The Task Force is guided by governing rules in the form of a set of rules and guidelines entitled the Jefferson County Drug Task Force Operational Policy dated September 18, 2008. The methodologies and standards of assignment of personnel to the DTF vary amongst the contributing agencies. Assignments do not involve a promotion. The length of assignment to the DTF also varies.

The DTF develops and cultivates informants, and they rely on the information received from these informants, along with other sources, to create their own cases and investigations. Should information relative to drug activity or suspected drug activity come to the attention of a member of the JCSO, any of the participating agencies or a number of other sources, the information relative to drug sale, manufacture or usage is passed to the DTF for follow-up and action. In matters of minor possession cases, which are normally dealt with by issuance of citations by uniformed patrol deputies, information regarding the case is sent to the DTF as intelligence information, for review purposes and potential follow-up if appropriate.

The DTF is a county-wide unit that is, at times, called upon by other agencies in the county when information relative to drug manufacture, trafficking and use is developed. A frequent occurrence in the county, when smaller agencies develop information relating to controlled substance activity, is for that agency to contact the DTF and turn the information over to them for continued investigation and disposition.

The Task Force also provides extended technical support for all county agencies, whether or not such agencies are represented on the unit. They possess forensic computer equipment and assist when needed on crimes that involve computers, cellular phones and other technology items. The Task Force also maintains and installs audio and visual surveillance systems to assist agencies with the investigation of other crimes.

DTF Byrne Grant Funding. The existence and operation of the JCSO DTF is subsidized by funding received from the Edward Byrne Memorial State and Local Law Enforcement Assistance Grant Program (Byrne Formula Grant Program). This grant program is a partnership among federal, state, and local governments with a goal to create safer communities. The Bureau of Justice Assistance (BJA) is authorized to “award grants to states and units of local government to improve the functioning of the criminal justice system—with emphasis on violent crime and serious offenders—and enforce state and local laws that establish offenses similar to those in the federal Controlled Substances Act.” Grants may be used to provide personnel, equipment, training, technical assistance, and information systems for more widespread apprehension, prosecution, adjudication, detention, and rehabilitation of offenders who violate such state and local laws.

Recent awards to the JCSO DTF received from the Byrne Grant Program are:

- \$34,305.00
- 28,212.00
- 28,024.00
- 26,233.00

(Source: JCSO DTF)

DTF Asset Forfeiture Seizures. The JCSO DTF receives fiscal support in the form of monies and seized equipment under the guidelines and laws governing asset forfeiture at the federal and state levels. When it is determined that property and/or money is involved in the manufacture, sale, trafficking or use of controlled substances, such property may be seized by law enforcement officials. A portion of such items may be turned over to the investigating and seizing agencies(s) for direct use in the continuation of the enforcement of controlled substance laws.

Asset Forfeitures

Year	Total Seized (In USD)	Turned Over to JCSO-DTF For Use
2003	\$ 9,753	\$ 2,700
2004	147,632	19,202
2005	23,257	3,650
2006	34,017	23,205
2007	361,190	150,604
2008	154,756	57,135

Note: Value of seized property is estimated and converted to USD

Figure 5-2

Other Duties – Investigation Division Personnel

In addition to the crime scene and follow-up work of criminal investigation, Investigation Division personnel perform a number of duties and tasks related to their rank as mandated by necessity or agency policy.

In addition to the tasks listed in Table 5-1, personnel frequently volunteer for additional duties and assignments which are part of the responsibilities of the Jefferson County Sheriff's Office. However, most court preparation, presentation and testimony generated by arrests made during these voluntary assignments will be performed during regular duty hours resulting in lost investigative and follow-up time.

Comparison with Other Law Enforcement Agencies of Similar Size and Function

A common approach to examining and determining staffing and deployment for criminal investigations is to compare one agency to others of similar size and function. Comparing staffing levels with other law enforcement agencies is suggested for an initial analysis however should not be used as a singular determining factor. A survey of six Wisconsin county sheriff's offices of similar size and demographics to the JCSO showed an average of 13.4 detective positions per agency.

When an agency has more detectives or fewer detectives than other similarly sized agencies, it should not be taken as an indication that the agency is over staffed or under staffed. Differences need to be analyzed using caseload data, crime trends, community differences and varying demographics, along with agency policy and practice. One agency may have an above average number of detectives that could be justified in a number of ways. The agency may experience particular problem offenses, which take vast amounts of time and effort to investigate, or its policy may be that all reported crimes must be reviewed by a detective as opposed to using solvability factors to determine which cases are assigned for further investigation. The local prosecutor's standards for case submission may influence how much time is spent on an investigation. The application of techniques and methodology of the facets of the criminal justice system within an individual county, also referred to as agency policy, also effects staffing. The differences need to be analyzed in consideration of the factors previously discussed.

Population Comparison

The Wisconsin County population statistics are presented in Table 5-3. Included are population figures from the year 2000 Census, the October 2008 final estimate and the change by individual county.

A total of 14 counties, including Jefferson County, are illustrated. Dane, Waukesha, Kenosha and Washington County do have significant demographic differences in comparison to Jefferson County. Larger city population concentration, coupled with independent municipal law enforcement agencies in those cities, have a tendency to reduce the need for significant criminal investigation assistance and involvement from the respective county sheriff.

<i>COUNTY</i>	<i>2000 Census</i>	<i>2008 Final Estimate</i>	<i>% Change</i>
Columbia	52,468	56,130	+ 7.0%
Dane	426,526	471,559	10.6
Dodge	85,897	89,810	4.6
Green	33,647	36,493	8.5
Iowa	22,780	24,196	6.2
Jefferson	75,767	81,022	6.9
Kenosha	149,577	162,094	8.4
Lafayette	16,137	16,468	2.1
Racine	188,831	196,321	4.0
Rock	152,307	160,477	5.4
Sauk	55,225	61,086	10.6
Walworth	92,013	101,315	10.1
Washington	117,496	130,493	11.1
Waukesha	360,767	382,697	6.1
State of Wisconsin	5.36 Million	5.67 Million	5.8

Table 5-3 Population of Selected Wisconsin Counties

Counties such as Jefferson, Walworth, Columbia and others rely more on their sheriff's office to possess the resources necessary to provide full service to its municipalities. Walworth County and Jefferson County, in particular, have no major population centers. This fact results in these sheriff's offices absorbing a greater responsibility for the investigation of crimes that occur in their respective counties. Considering the nine largest communities in Jefferson County, only Watertown, Jefferson and Fort Atkinson have full-time investigators.

Index Crime Offense Comparison

Statistical data follows in Table 5-4 that illustrates the reported major crimes in fourteen local Wisconsin counties for the year of 2007. As indicated elsewhere in this report, comparisons of this nature are in most cases interesting at best. The FBI itself, the collector and repository for crime data, cautions against making assumptions and decisions based on such comparisons.

The FBI cautions "Because of the many variables that influence crime in a particular town, city, county, state, or region, the UCR Program does not encourage comparisons of this nature. Some of those variables include, but are not limited to: population density and the degree of urbanization, modes of transportation of highway system, economic conditions, and citizens' attitudes toward crime."

2007 WISCONSIN COUNTY	<u>Violent Crime</u>	Murder & non- negligent manslaughter	Forcible Rape	Robbery	Agg. Assault	<u>Property Crime</u>	Burglary	Larceny- Theft	Motor Vehicle Theft	Arson
Columbia	32	0	2	1	29	400	123	259	18	0
Dane	66	0	15	11	40	1,376	324	967	85	7
Dodge	37	1	5	0	31	266	73	177	16	3
Green	10	2	3	0	5	167	46	110	11	1
Jefferson	51	0	7	1	43	478	167	287	24	6
Kenosha	34	1	2	12	19	772	184	554	34	0
Lafayette	2	0	1	0	1	165	40	122	3	1
Racine	17	0	1	9	7	683	95	539	49	5
Rock	38	3	9	3	23	605	187	396	22	4
Sauk	33	0	2	6	25	614	88	497	29	0
Walworth	6	0	5	0	1	407	75	297	35	1
Washington	24	0	6	1	17	567	122	409	36	8
Waukesha	30	0	5	4	21	493	101	378	14	0

Source FBI UCR

Table 5-4 – Index Crime Comparisons

Statistical data illustrating levels of crime are more meaningful when a comparison is made within one single geographic area and is reported in an annual, monthly or even daily manner applied in a true crime analysis format. Table 5-5 shows a five-year span of UCR Violent Crimes and Property Crimes occurring entirely in Jefferson County.

Index Crime Offenses in the Violent Crime category have shown moderate increase in Jefferson County over the past five years. Index Crime Offenses in the Property Crime category have significantly and steadily increased.

In summation, comparisons to other sheriff's offices and population alone are not recommended as the major method of determining staffing levels for criminal investigation units. It is not possible to thoroughly investigate all reported crime. The number of crimes investigated and the depth of the investigations are largely the result of changing trends in the types and complexity of crimes, public perceptions, community expectations, community demands and agency policy.

JEFFERSON COUNTY	<u>Violent Crime</u>	Murder & non- negligent manslaughter	Forcible Rape	Robbery	Agg. Assault	<u>Property Crime</u>	Burglary	Larceny- Theft	Motor Vehicle Theft	Arson
YEAR										
2003	32	0	10	0	22	297	55	225	17	*
2004	36	0	16	0	20	370	76	273	21	5
2005	52	0	14	1	37	402	79	290	33	3
2006	49	0	4	3	42	456	111	325	20	2
2007	51	0	7	1	43	478	167	287	24	6

* denotes Data not available

Source FBI UCR

Table 5-5 Jefferson County Index Crime

Additional Considerations

1. The effect of Interstate I-94, which passes through the heart of Jefferson County and ties the state Capitol City with the largest city in Wisconsin.
2. The increase in recreational trails, wildlife areas, parks and camping areas in the county.
3. The growth and complexities of investigating certain crimes such as:
 - Methamphetamine manufacturing, sale and use
 - Computer crime
 - On-line child pornography
 - Prescription forgery and abuse of prescription drugs
 - Identity theft
 - Cellular phone usage in criminal activities
 - Terrorism
 - Gang activity

One such case culminated in June of 2008 following a ten month investigation. JCSO worked with other local, county state and federal agencies in focusing on a large scale drug trafficking organization based out of the City of Watertown. During the course of the investigation, a total of 12 undercover operations were conducted. These operations utilized multiple informants, and undercover police officers. A total of 17 individuals were arrested and large quantities of cash, vehicles and a number of firearms were seized. It is paramount that it be recognized that these types of crimes have already surfaced in every county and city in Wisconsin.

Investigations of such complex crimes take large volumes of time to detect, to investigate and to prosecute. Further, if investigators dedicate their time to such multifaceted and time consuming investigations, the time available to dedicate to violent crime, property crime and other drug offenses will lessen. Indications of this “time crunch” are already evident within the Investigative Division.

Managing Criminal Investigations

The intention and purpose of this analysis is to present a set of recommendations relating to the actual operation of the Jefferson County Sheriff’s Office. The study team will offer written discussion on policy and procedure that might well impact on staffing levels and practices. Some of these discussions are presented for consideration.

Computerized Case Management and Case Screening. Case screening policies mandating which crimes will be investigated and the thoroughness of the investigations is a major determinant of total personnel needs. The objective of case screening is to assign available personnel to those investigations that have the greatest probability of being resolved. A written directive should specify how such screening is to be conducted, by whom, and what criteria (solvability factors)

should be used. Screening of preliminary investigative information will assist in the decisions of whether follow-up investigations should be made.

As previously stated, it is not possible to investigate all reported crime. A good case screening system, however, can increase both the effectiveness and efficiency of criminal investigation units by intelligently selecting cases and allocating investigative time to those cases.

A case screening system is based on policy decisions about which crimes will be investigated and what solvability factors are required to initiate an investigation. Some law enforcement agencies limit follow-up investigations to serious felonies while others may investigate all felonies and serious misdemeanors.

In using a computerized case screening or system a point system, a prepared checklist or other method is often used to identify what solvability factors exist in each case. The point threshold will obviously affect the number of cases investigated. There is often resistance by detectives to having a computer decide which cases are investigated and which are not. However, it is the agency that determines the solvability factors and points. The decision about the extent of follow-up or the suspension of investigative efforts should be made at a management, or at the minimum a supervisory level. This provides improved management control over the productivity of investigations.

The computer is only reacting to what the agency has decided. Additionally, the process is faster than requiring a supervisor to read through all reports. Such a system ensures standardization in the application of investigative time and can be easily modified to suit changing crime patterns and crime trends.

In addition to applying solvability points, case management software provides a number of other functions. It can track the progress of current cases, document the hours spent on each investigation, and document case dispositions; all useful for future work force assessments.

Solvability Factors. Not all crimes can be solved, no matter how much investigative effort is put forth. The volume of crime is at a level that most police agencies find it difficult to provide more than minimal follow up by investigative attention to low priority crimes. As a result, agencies must allocate scarce investigative personnel resources to those crimes that have a chance for solution.

Once an initial crime report has been completed, the report is scrutinized to determine what steps should be taken next to solve the crime. Minor misdemeanor and property crime cases must display a potential for solution before they are assigned to an investigator for follow up. A bicycle stolen overnight from a front yard might normally not be assigned to an investigator. If, however, crime analysis shows that there had been a number of recent thefts in the same proximity or the stolen bicycles appeared in local stores for resale, the case would most likely be assigned to a detective for follow-up.

Another factor in the assignment of cases is the seriousness of the offense. The more serious are often assigned for follow up investigation regardless of the existence or lack of existence of

solvability factors. These types of crimes are assigned because of factors that include the perceived severity of the crime, injuries caused to the victim, a threat of continued violence associated with the crime and a higher potential for solving the case and making an arrest. Significant property loss, as defined by the agency or by state law, can also cause a crime to receive immediate follow-up investigation.

The criteria that govern this decision making process are known as solvability factors. Almost every police organization that employs full time investigators uses some version of solvability criteria to assign cases and assist in identifying which cases will be investigated and which cases will not. If certain basic facts are known, this can lead investigators on a clear path toward resolving the case. Without a distinct degree of “lead” information, a case has almost no potential for resolution. This is why solvability factors are so important. They provide a valid guide to the allocation of scarce resources; namely the detective.

Solvability factors are those leads, clues and pieces of information present at a crime, which have been found to be useful in bringing a case to a successful disposition. The success of the follow-up investigation, if one is necessary, depends heavily on how the preliminary investigation was conducted and on the information uncovered during the initial phase.

It is imperative that an agency apply the principles of development, identity and application of solvability factors as a regular component of all criminal investigations. It is not important what methodology is applied in the application of solvability factors. What is most important is that the methodology is thorough, consistent and in conformity with agency policy.

Useful solvability factors include:

- Determination of the existence of witnesses to the crime
- Knowledge of the suspects name
- Knowledge of where the suspect can be located
- Description of suspect
- Description of the suspect’s vehicle
- Property with traceable, identifiable characteristics, marks or numbers
- Existence of a significant method of operation
- Presence of significant physical evidence
- Belief that crime may be solved with publicity and/or reasonable additional investigative effort
- Possibility and/or opportunity for anyone, other than the suspect, to have committed the crime
- Reporting officer has personal knowledge which provides substantial leads for clearing the case

Major cases and less serious cases, with higher solvability ratings, are initially assigned to investigators for follow-up. While the system is not perfect, it helps focus efforts on the most serious crime problems of the community. Patrol officers and detectives are encouraged to be candid with crime victims about the solvability of each case in order to provide a realistic expectation of services from the agency. If the officer determines that there are no solvability

factors, the officer should advise the victim that the case will be held pending the development of new investigative leads, at which time the case may be re-opened and a follow-up investigation conducted. This is just one way that investigators can shape community expectations.

Crime Analysis. Crime analysis has been practiced in law enforcement long before agencies began sticking pins into wall maps to mark the locations of crimes that have occurred. As such earlier practices continued, critics charged that all law enforcement was learning was where crimes had already occurred. Perhaps the first step in the development of crime analysis was when someone stepped back and saw a cluster, pattern or geographical area where many crimes occurred. Watching that pattern continue to grow indicated the obvious. These realizations led to plans. Get more officers into that area or establish a fixed surveillance or assign more detectives to investigate those crimes or inquire of neighbors, shopkeepers and others as to what they know about individuals who might be acting suspiciously.

In contemporary law enforcement, in some ways computers and crime analysis software have replaced the “pins” and the “maps.” Through screening of cases, application and inclusion of solvability factors and crime trend and pattern analysis have been joined by the technology of integrated computers, mobile data computers, CAD (Computer Aided Dispatching), intricate RMS (Records Management Systems) and more. No modern law enforcement agency should be without these capabilities.

Cases not assigned for immediate investigation may contain useful information. Even cases lacking solvability factors can contain valuable information useful in determining crime patterns. Establishing crime patterns is the first step in effective crime analysis. This can lead to an increase in police presence in various neighborhoods. Additionally, it is not uncommon for a suspect developed in one case to be linked to an unassigned case, which can then be reactivated.

A word of caution is presented in the development and in the all-important updating and monitoring of such systems. The importance of selecting, installing and maintaining technology, in order to best meet the present and future needs of the agency, cannot be overemphasized. A disturbing number of law enforcement agencies have determined that they are fully capable of “going it alone.” Consideration should be given to conferring with a technology consultant on these matters.

Report Writing and Data Entry. The study team has observed the current methods of report writing involving the vast majority of criminal offense reports, supplementary reports and other non-criminal reports.

Most reports are dictated by investigators into recording devices. This dictation is most often done in the offices of the sheriff’s office as opposed to from the street or the scene of a crime. The recorded information is then turned over to the secretarial staff. The dictated material needs be transcribed and entered into the CIS-RMS after the appropriate electronic form template is brought forward from the system. The entry of the dictated material and the accessing of the various templates required results in the creation of an electronic report.

This practice clearly leads to a bottle neck in the report entry system. Entering personnel are required to prioritize which reports get entered and which must wait. Obviously, the reports involving smaller crimes are set aside. A backlog exists and citizens who come to the sheriff's office are, at times, unable to obtain copies of reports for weeks. This creates ill feelings amongst those citizens that are unable to get copies of these reports and also leaves the public with the perception that the absence of a report is indicative that nothing is being done relative to their original complaint.

The fix for this difficulty is in the installation and use of Mobile Data Computers (MDC) in agency vehicles which are capable of accessing the CIS computer in order that detectives and deputies can create their own reports from the scene of their investigation. This recommendation will be carried in to the Technology recommendation section of this analysis.

Criminal Investigation Policy - Recommendations

The study team has reviewed the various policies that govern the JCSO, as well as those that relate to the formation and operation of the Jefferson County Drug Task Force. It is the recommendation of the study team that the JCSO conduct periodic reviews of their rules, regulations and written policy. A suggestion is that this be done on an annual basis.

In general, the JCSO has established a solid set of policies and procedures. It is not the purpose of this analysis to delve deeply into existing policy or comment on policy that might well be developed. There are, however, a few matters that the study team feels would be well to attend to relating to the development of written and succinct policy in the field of criminal investigation and drug enforcement.

These recommendations focus on the advisability of developing a written policy and do not imply that procedures are not already in place. **The study team recommends that these procedures should be codified for the protection of the agency and the employee.**

- Development of a written case screening system
- Develop criteria for identifying and tracking habitual and serious offenders
- Development of procedures for information control related to intelligence
- Development of a written policy relative to use of confidential informants
- Development of a written policy on controlled drug buys and, conducting or participating in, surveillance, undercover, decoy and raid operations. (such policy should be developed in close accord with members of the office of the local District Attorney)

Investigative Personnel - Recommendations

The slight increase in violent crime coupled with the steady increase in property crime in the county are displayed in the table displayed earlier in this analysis. These increases would seem to indicate that additional personnel resources in the form of criminal investigators would be appropriate to deal with the trend. Additional detectives will enable the agency to increase the

percentages of crimes which can be actively investigated and increase the amount of time devoted to each case, as well as to increase arrests and the rate of crime clearance. As arrests increase, and offenders are successfully prosecuted, crime should decrease as more repeat offenders are incarcerated.

Additional investigative time also will allow detectives to adopt more of the principles associated with problem oriented policing. They will be able to focus on patterns of criminal activity and locations that are prone to high levels of criminal behavior. By addressing some of the conditions that facilitate the commission of crime, their actions should further reduce criminal activity within the county.

An increase in the number of detectives should also result in all detectives having additional unobligated time to work in concert with patrol officers and community groups. As the detectives become more engaged in direct community contacts, they will be able to better utilize the critical communication connections that are important to solving multiple crimes.

The study team recommends that existing conditions be modified in order that detectives might have more time to devote to the actual investigation of crime. **The study team recommends the addition of two part-time personnel to the Investigative Division.** The hiring of individuals who possess a background in law enforcement, such as retired members of the JCSO or other similar agency, is paramount. We further recommend that these individuals be designated as evidence officers and be assigned the evidence related duties currently being performed by detectives of the Detective Division and the Drug Task Force, thereby relieving detectives of the vast majority of those duties.

Fiscal Impact. The primary recommendation is to add two deputies to the Investigation Division. As mentioned in the patrol section, the average annual wage for a deputy is about \$49,000. It is assumed that experienced deputies would be selected for investigations, so the cost per deputy would likely exceed the average annual cost.

It is estimated that these deputies would work about 1000 hours annually each (especially in their first year as they reorganized and better structure the evidence function). The average wage for part time deputies is \$15.61 hourly so the annual cost for this recommendation would be about \$31,200.

Scheduling

Detectives' working the day shift only, with weekends off, was the recommendation of O.W. Wilson in the 1950's. His rationale was that the sources of information detectives needed were only accessible during regular work week hours. To a great extent he was right at the time, but with the availability of computerized records and 24/7 access to information, this is no longer true.

Most of the personnel in the Investigative Division work the day shift and are off duty on weekends. The exception is that two detectives work 2p.m.-10p.m. They also have weekends

off. Specifics of the current scheduling practice are detailed earlier in this study with some variables which involve the Drug Task Force.

Although detectives are on call, they are called out only in a few of the most serious cases. The majority of cases wait until they are assigned to a detective. The current practice of dispatching patrol personnel to investigate crimes as they are reported and then requiring the patrol officer to continue the investigation compounds the delay. The result is often that a detective does not see the case until the next day, at the earliest.

More delay is currently built in to the system when offense reports do not get entered into the system in a timely fashion. The press of work on the administrative staff frequently results in a prioritization of entry resulting in reports involving lesser crimes being delayed for additional periods of time. More typically, the case is not turned over to a detective for several days or until the patrol officer has exhausted all leads. It is well accepted that the probability of solving a crime diminishes the further the investigation gets from the time of commission. This is truer of violent crimes than it is of property crimes. Violent crimes are usually reported as soon as they occur and the offenders and witnesses are likely still in the area. Property crimes are not reported until they are discovered by which time the critical time advantage has been lost.

The Jefferson County detectives depend on the patrol officer responding to the scene and conducting the preliminary investigation to locate witnesses and apprehend offenders, if they are known. Consideration should be given to modifying this practice so that detectives are dispatched to such crime scenes whenever possible. There is no substitute for personal, on scene examination by a criminal investigator in order to facilitate the clearance of a crime. This practice would need to be a flexible one. Detectives are not always available. In such cases, the patrol officer would continue to have the total responsibility for preliminary investigation. Current policy and practice appears to work well under the coordination of patrol and the criminal investigation supervisor.

Crimes committed at night are committed by offenders that are out at night. Crime does not cease at 6 p.m. Witnesses to a crime committed at 11 p.m. are not likely to be found at 11 a.m. The informants that every good detective needs to develop are generally not day people. The Jefferson County Sheriff's Office should consider assigning its detectives to work the hours when crimes are being committed.

Likewise, the work hours of the Drug Unit should be evaluated and adjusted to make the unit members more available during nighttime hours. Drug trafficking, dealing and use is not widespread only on Monday through Friday, ceasing at 6p.m.

The study team recommends that two additional detective positions be established and that those persons be assigned to the night shift and work hours as determined by the Sheriff. Our recommendation is that these hours be 2p.m.-10p.m. or 3p.m.-11p.m. It is further recommended that the two detectives currently working 2p.m.-10p.m. be retained on that shift. This would result in six detectives working the day shift and four detectives working the night shift.

The study team recommends that staffing schedules be established that would result in detectives being on duty seven days a week, both on the day shift and on the night shift. (2p.m.-10p.m.; 3p.m.-11p.m. or whatever night schedule is set by the sheriff)

Technology Recommendations

The study team recommends that the Jefferson County Sheriff's Office purchase the appropriate computer hardware and software to assist them in the development and establishment of

- A computerized case management system that will encompass a case screening system for case assignments
- An enhancement of Crime Analysis capability
- Installed Mobile Data Computers in vehicles which permit 2 way transmission from remote locations and allows direct access to CIS (Computer Information Systems) to facilitate report writing and entry
- Contracting with a law enforcement technology consultant to evaluate the needs of the JCSO and to make recommendations relative to technological availability and need

Summary

The Investigative Division is a well-functioning component of the JCSO and is under excellent leadership in the areas of command and supervision.

During this analysis, the study team has had contact with a number of chiefs of police, supervisors and officers of municipalities located in Jefferson County. Without exception these individuals speak very highly of the work, the assistance and the cooperation that they receive from members of the JCSO Detective Division and the Drug Task Force. This attitude extends to the office of the assistant district attorney who works most closely with general detectives and task force members.

The civilian/secretarial personnel of the JCSO are efficient and dedicated to doing things right. They are highly effective in capturing data and record keeping, as is the case with all of the command and supervisory staff that have had contact with this analyst.

Appendices

- 3.1 PAM Project and Methodology
- 3.2 PAM Data Requirements
- 3.3 Jefferson County PAM Data
- 4.1 Jefferson County Jail Staff Coverage Plan
- 4.2 Jefferson County Jail Housing Summary
- 4.3 Current 8-hour 5/2 – 5/3 Schedule Rotation (28-day Cycle)
- 4.4 Sample 8-hour 5/2-5/3 Schedule Rotation (28-day Cycle)
- 4.5 Position Classification Factors 5/2 – 5/3 Jail Sergeants
- 4.6 Position Classification Factors 5/2 – 5/3 Jail Deputies
- 4.7 Jail Deputy / Sergeant Time Off Data Elements
- 4.8 Time Off By Month Comparison Chart
- 4.9 Jail Deputy Available Vacation / Holiday Time
- 4.10 Deputy Benefit Time Available Summary
- 4.11 Jefferson County Jail activity schedule
- 4.12 Sample 12-hour Schedule Rotation (28-day Cycle)
- 4.13 Position Classification Factors based on 12-hour Shift
- 4.14 Staff Coverage Plan based on 12-hour Shift
- 4.15 Jefferson County Inmate Classification Status

Appendix 3.1

Overview of the Police Allocation Manual (PAM) Project and Methodology

PAM Project

The Police Allocation Manual (PAM) and Police Allocation Manual User's Guide were developed and field tested by the Northwestern University Center for Public Safety under a contract (No. DTNH22-92-C-05051) issued by the National Highway Traffic Safety Administration, U.S. Department of Transportation. Principal Investigator and author for the study was Dr. William Stenzel. The project was administered by the Office of Enforcement and Emergency Services.

The PAM project was initiated in June 1988. Phases I and II were used to produce a staffing and allocation procedure and manual for statewide law enforcement agencies. Phase III was used to modify the products for sheriffs' departments. In Phase IV, the Manual and Guide were revised and field tested for use by municipal law enforcement agencies. The Phase I field test was conducted during the summer and fall of 1989, and the Phase I products were completed in February 1990. Phase II of the project was completed in January 1991 and the final version for state-level agencies (Version 4.0) was completed in July 1991. The final version for Phase III (Version S3.0) was completed for sheriff's departments in September of 1991. Activities to extend the PAM methodology to municipal agencies (Phase IV) were completed in 1993.

Purpose of the PAM Procedure

The Police Allocation Manual (PAM) is designed to be used by law enforcement agencies whose mission includes the delivery of patrol and traffic services. The Manual can be used to determine staffing levels for a traffic division with limited patrol coverage or for a patrol division with traffic responsibilities. The Manual is designed to help agencies address the following questions:

1. What is the total number of officers, field supervisors, and command personnel that are required to provide acceptable levels of patrol and traffic services? and
2. How should a total number of patrol officers be allocated by geographic regions or time periods to maximize agency productivity?

The framework and rationale for the procedures presented in the Manual are the result of a distillation process that identified the "best" procedures currently in use by agencies

throughout the United States, and then modified and blended those procedures into a comprehensive model for determining appropriate patrol staffing levels and deployment patterns. The procedures in PAM provide agencies with a logical and explicit format in which to frame requests for additional personnel and/or staff allocation.

The municipal version of the Police Allocation Manual consists of four chapters and one appendix. Chapter 1 provides a brief introduction to the purposes and uses of the Manual. Chapter 2 describes the PAM patrol staffing and allocation model. Chapter 3 contains eight worksheets, each with instructions that provide a step-by-step process for determining patrol staffing levels. Chapter 4 contains one worksheet for determining patrol staffing allocations over several geographic areas or time periods. Appendix A contains worksheets that can be used as alternatives to the procedures presented in Section 5.2 in Chapter 3.

Additional information about the PAM procedures can also be found in the companion document, Police Allocation Manual User's Guide. The Guide presents implementation, data definition, and data collection strategies used by the field test agencies. Also included in the Guide is a summary of key input values and numerical results obtained by the agencies that field tested the Manual. The appendix materials in the Guide include a list of the input data required to use the PAM model (Appendix A), a glossary of key terms and notation (Appendix B), a detailed example showing all nine worksheets in completed form (Appendix C), and derivations of all key formulas used in the model (Appendix D).

Overview of the PAM Model

The procedures used in the PAM model to determine the total staff requirements for the delivery of patrol and traffic services are based on an analysis of patrol workload requirements, performance objectives, personnel policies, and the roadway system within the jurisdiction. All officer time, both on and off-duty, is divided into two categories: patrol and non-patrol. Non-patrol time includes all off-duty time and on-duty non-patrol assignments. Non-patrol time is accounted for by the operational practices and personnel policies of the agency and is reflected in the "shift relief factor" determined in Worksheet 8 of the Manual. All on-duty patrol time is divided into four components:

1. Reactive (calls-for-service) time,
2. Proactive (self-initiated and community-oriented policing) time,
3. Proactive (uncommitted patrol) time, and
4. Administrative time.

Time Components Used in PAM

Reactive Time. Reactive time refers to patrol time spent on activities that can be described as service-on-demand. These are usually calls for service (CFS) that are assigned by radio dispatch. Since most agencies provide both patrol and traffic services, the PAM model classifies all CFS as either "accidents" or "other CFS." The total time spent answering CFS is referred to as "obligated time."

Proactive (Self-Initiated and Community-Oriented Policing) Time. Proactive (self-initiated and community-oriented policing) time refers to patrol time spent on officer-initiated activities. Time spent on CFS and administrative activities are not included in this category. In the PAM model, proactive activities may include the issuance of citations and warnings for driving violations, assisting motorists, providing traffic direction and control, conducting field interrogations, and time spent on community-oriented policing (COP) activities.

Proactive (Uncommitted Patrol) Time. Proactive (uncommitted patrol) time refers to time spent patrolling both on and off-road in the jurisdiction but not spent on reactive, self-initiated, or administrative activities. Uncommitted patrol provides two benefits: "visibility" for the general deterrence and detection of traffic and criminal violators, and "availability" for self-initiated activities and for the timely response to CFS. Uncommitted patrol time includes time spent on both moving and stationary patrol.

Administrative Time. Administrative time refers to patrol activities that do not fall into the reactive, self-initiated, or uncommitted patrol time categories. Typical administrative activities include on-duty court time, personal time (e.g., for meals), patrol car maintenance, training, and agency administrative duties. On-duty time spent on non-patrol activities such as extended training or special assignments are accounted for in the calculation of the shift relief factor for the agency.

Autonomous Patrol Areas

The PAM procedure determines total patrol staffing for one or more "autonomous patrol areas" (APAs); that is, geographic areas that exhibit the following characteristics:

- virtually all CFS that originate in the area are handled by officers assigned to the area (or conversely, few CFS in the area are handled by officers assigned to other areas);
- officers assigned to the area are rarely assigned to CFS outside of the area; and
- although officers may be assigned to specific geographic subdivisions within the area, an officer may be dispatched, if required, to a CFS anywhere within the area.

In most jurisdictions, APAs are larger than individual patrol beats since officers are routinely dispatched to CFS outside their assigned beat areas. In some agencies, each precinct, district, or zone operates as an APA. In others, with larger geographic areas, one district may consist of several APAs. In many cases, the entire jurisdiction may serve as a single APA.

Total Patrol Staff Requirements

To determine the total patrol staffing for an agency, the PAM model is used as follows:

1. The entire jurisdiction is either treated as a single APA or is subdivided into a number of APAs. The APAs should cover the entire jurisdiction and should not overlap.
2. The PAM procedure is used to determine the total patrol staffing requirement for each APA.
3. The patrol staffing requirement for the entire jurisdiction is obtained by adding the staffing requirements for all the APAs. (The resulting total may need to be supplemented with additional personnel assigned to the central or regional headquarters of the agency.)

The PAM model uses the following steps to determine the total patrol staffing requirement for each APA:

1. The average daily on-duty patrol staffing requirement (i.e., the number of officers required to meet the administrative, reactive, self-initiated, and uncommitted patrol requirements) is determined. The resulting number of officers is then adjusted for the use of two-officer patrol units, specialized units, and, if applicable, minimum staffing requirements.
2. The average number of on-duty field supervisors required to support the average daily on-duty officer requirement is determined. The number of officers is then adjusted to account for patrol workload performed by field supervisors.
3. The total patrol staff requirement (i.e., the total number of personnel needed, both on and off-duty, to support the required on-duty patrol presence) is determined for the APA. The total patrol staff requirement will include officers, field supervisors, and command personnel.

Average Daily On-Duty Officer Requirement

The PAM model determines the average number of on-duty officers that will be required each day (i.e., within each 24-hour period) with the following formula (see Appendix D in the Guide for a derivation of this formula):

$$N = \frac{N_r + N_p}{1 - \frac{m_a}{60} - \frac{m_s}{60}}$$

where:

- N** - the average number of on-duty officers required per day (i.e., per 24-hour period),
- N_r** - the average number of on-duty officers required per day to service all CFS (other CFS and accidents) in the APA,
- N_p** - the average number of on-duty officers required per day to provide the specified level of uncommitted patrol in the APA,
- m_a** - the average number of minutes per hour spent on administrative activities by each on-duty officer, and
- m_s** - the average number of minutes per hour spent on self-initiated/COP activities by each on-duty officer.

Much of the effort required to use the PAM model is spent determining appropriate values for **N_r**, **N_p**, **m_s**, and **m_a** based on the workload level, operational policies, and roadway and traffic characteristics of each APA. The basis for deriving each of these values is outlined below.

Number of officers for reactive time workload (N_r). The average number of officers required per day to provide service for all accidents and other CFS in the patrol area is based on the average total obligated time per day required for all accidents and other CFS, and the shift length used by the agency.

Number of officers for uncommitted patrol time (N_p). The average number of officers required per day to provide uncommitted patrol is based on:

- the number of officers required to provide an adequate level of uncommitted patrol visibility as measured by the “patrol interval” (i.e., the average time between trips past any given point on the roadway); and

- the number of officers required to insure a timely response to emergency and non-emergency activities.

The number of officers required for visibility is based on the miles of roadway to be patrolled, the average uncommitted patrol speed, the shift length, and the desired patrol interval by roadway type. As an example, a patrol interval of eight hours indicates that an officer will be observed on uncommitted patrol on a given roadway segment about once every eight hours or three times per day.

Two criteria are available in the PAM model for determining the number of officers required for a timely response to CFS. The number can be determined based on either:

- the percent of emergency activities (i.e., accidents and other CFS) for which an officer is immediately "available" (i.e., either an officer who is not currently involved in a CFS, self-initiated, or administrative activity, or an officer currently assigned to an activity that can be preempted); or
- the average travel times to emergency and non-emergency CFS activities.

The number of officers required for immediate response is based on the average number of officers required per shift for reactive time activities, the immediate response percentage set by the agency, and the percentage of administrative, self-initiated/COP, and reactive activities that can be preempted. Travel time values are based on the size of the patrol area, the average response speeds for emergency and non-emergency activities, the shift length, the average travel time objectives for emergency and non-emergency reactive activities set by the agency, and the percentage of administrative, self-initiated/COP, and reactive activities that can be preempted.

Self-initiated/COP time per hour per officer (m_s). The PAM model does not attempt to directly determine the total number of officers that are necessary for all self-initiated/COP activities. To produce such a value would require measurement of the total self-initiated/COP workload for the agency (i.e., the total time that an agency could spend on these activities within the patrol area). To avoid the difficulties associated with determining this value, the PAM model identifies the number of minutes per hour spent on self-initiated and COP activities by each officer (m_s). The PAM model allows the user either to specify a value for m_s or to derive a value based on self-initiated data for the agency from previous years.

Administrative time per hour per officer (m_a). Paralleling the rationale given above for determining m_s , the PAM model does not attempt to determine the total administrative workload of the patrol force, but rather identifies the amount of administrative time required per hour per officer (m_a). The PAM model permits the user either to specify a value for m_a or to estimate it based on agency experience.

Adjustments to the Average Daily Number of On-Duty Officers

The initial value for the average number of on-duty officers required per day may be modified to account for:

- the use of two-officer patrol units,
- patrol activities provided by officers assigned to specialized units (e.g., officers assigned to a tactical unit or to an accident investigation unit), and
- minimum patrol staffing levels.

Average Daily Number of On-Duty Field Supervisors

The average number of on-duty officers required per day serves as the basis for calculating the number of on-duty field supervisors needed. Two factors are used:

1. the average number of officers supervised by each field supervisor (set by agency policy), and
2. the fraction of each field supervisor's time spent on patrol (i.e., non-supervisory) activities.

Total Staff Requirement

Worksheet 8 of the PAM model is used to determine the total number of personnel, both on and off duty, required to support the average number of on-duty officers and field supervisors required per day. The total number of personnel consists of officers, field supervisors, and command personnel (e.g., field and shift commanders). The total number of officers and field supervisors is determined using the shift relief factor for the agency. This factor indicates the average number of officers required to staff one shift position every day, and is based on the shift length, the average work week (i.e., the average number of scheduled on-duty hours per week per officer), and the average number of on-duty patrol hours per officer per year. The number of command personnel required is specified by the user.

Total Patrol Staff Allocation

The final worksheet in the Manual (Worksheet 9 in Chapter 4) is used to determine patrol staffing allocations over several geographic areas based on PAM staffing estimates for each APA and the total number of patrol personnel available for deployment. Although the discussion in this section and Chapter 4 refers only to the allocation of staff over geographic areas, the procedure can also be used to allocate staff over several time

periods (e.g., staff allocation over several shifts or days of the Worksheet 9 can be used to determine either “unconstrained” or “constrained” allocations.

Unconstrained Allocation

Unconstrained allocation refers to a redistribution of all available patrol staff among several APAs according to the percentage of patrol staff in each APA based on staffing estimates from the PAM model. Such an allocation is called "unconstrained" because it is possible that a reallocation of the total staff may produce a deployment in which some APAs gain patrol staff and other APAs lose staff.

Constrained Allocation

Constrained allocation refers to a reallocation of patrol staff under the following limitations:

- if the total patrol staff is to be increased, no APA will lose patrol staff because of the reallocation, or
- if the total patrol staff is to be decreased, no APA will gain patrol staff because of the reallocation.

The process for determining the allocation under these limitations consists of the following steps:

1. The results of the unconstrained allocation are used to characterize each APA as either overstaffed or understaffed.
- 2a. If the total patrol staff is to be increased, the additional staff (i.e., the difference between the current total patrol staff and the final total patrol staff) are allocated, based on the PAM patrol staffing estimates for each APA, only to those APAs that are currently understaffed; (Patrol staffing levels for overstaffed APAs remain unchanged.) or
- 2b. If the total patrol staff is to be decreased, the staff reduction (i.e., the difference between the current total patrol staff and the final total patrol staff) is allocated, based on the PAM patrol staffing estimates for each APA, only to those APAs that are currently overstaffed. (Patrol staffing levels for understaffed APAs remain unchanged.)

It is possible under the limitations of constrained allocation that, even after reallocation, some APAs may still be over or understaffed.

Limitations of the PAM Model

Municipal police departments in the United States vary significantly in size, operational mode, and physical setting. The PAM model is a generic procedure that must be adapted to fit the mission, physical environment, roadway system, and operational idiosyncrasies of each agency.

In addition, there are a number of issues that, although addressed in a general sense in the model, represent relationships and circumstances for which additional research and operational experience are needed. These include:

- the impact of state and municipal law enforcement agencies upon the mission and resource requirements of county law enforcement agencies;
- the relationship between the amount of self-initiated work and various roadway and traffic characteristics;
- the determination of travel times for large non-urban areas with sparse roadway systems; and
- the determination of patrol staffing requirements for patrol and traffic services on high-volume, high-density, urban interstate and expressway systems.

Appendix 3.2

PAM Data Requirements and Worksheets

This document identifies the data elements and worksheets of the PAM procedure that are used to estimate the staffing needs of a municipal police department.

Data Requirements

The data items are subdivided into five categories:

- Physical data - descriptive information about the physical size and characteristics of the jurisdiction (e.g., the number of street miles)
- Policy data - operating characteristics of the agency that are fixed (e.g., the shift length)
- Historical data - the amount of work handled by the agency (e.g., the number of calls-for-service (CFS) per year)
- Practice data - operating characteristics of the agency that may vary from one officer to another (e.g., the average number of sick days taken per year)
- Performance - indicators of the effectiveness and efficiency of the agency (e.g., the percent of CFS for which at least one patrol unit is available for immediate dispatch)

The five tables below provide additional information about the individual data items. Each table contains four columns with the following information:

- Data Item - The PAM data item name.
- Table Location - The location of the first time the data item is used in the PAM worksheets.
- Units - The units for the data item used in the PAM model.
- Definition - A brief explanation of the data item.

Data for the first four categories (physical, policy, historical, and practice) are, to the extent

possible, obtained from records for the jurisdiction and the agency. Data for the “performance” indicators require decisions to be made regarding the effectiveness and/or efficiency of the agency in two areas: patrol “visibility” for the deterrence of the crime and traffic violators, and patrol “availability” for rapid response to emergency CFS. Given the amount and detail of the information required for the PAM procedure, few agencies have all the necessary data in the format required. In most cases, data are obtained from a variety of sources including department records, sampling, and informed estimates provided by experienced department personnel.

PAM Input Data: Physical

Data Item	Table Location	Units	Definition
Area name	1.1	None	Name of the autonomous patrol area
Roadway category 1	1.2.5.1	Name	Examples of roadway categories are interstate highways, primary highways, arterial streets, collector streets, residential streets, etc.)
Roadway category 2	1.2.6.1	Name	Examples of roadway categories are interstate highways, primary highways, arterial streets, collector streets, residential streets, etc.)
Roadway category 3	1.2.7.1	Name	Examples of roadway categories are interstate highways, primary highways, arterial streets, collector streets, residential streets, etc.)
Number of category 1 roadway miles in jurisdiction	1.4.1	Miles	Number of category 1 roadway miles within the autonomous patrol area
Number of category 2 roadway miles in jurisdiction	1.4.2	Miles	Number of category 1 roadway miles within the autonomous patrol area
Number of category 3 roadway miles in jurisdiction	1.4.3	Miles	Number of category 1 roadway miles within the autonomous patrol area
Area of the jurisdiction	5.3.2.1	Square Miles	Geographic size of the jurisdiction served by the agency

PAM Input Data: Policy

Data Item	Table Location	Units	Definition
Shift length	1.2.1	Hours	The number of hours a officer works on one tour, watch, or shift
Average work week	1.2.2.1	Hours	The average number of on-duty hours a officer is paid for each week
Average number of officers supervised by each field supervisor	1.2.3	Number of Officers	Average number of patrol officers supervised by each field supervisor
Percentage of patrol units with two officers	6.2.1	Percent of Units	Percent of patrol units with two officers
Minimum staffing requirement per day	6.3.1	Number of Officers	Minimum staffing requirement for the agency each day (24-hour period)
Special assignment 1	7.2.1.1	Name	Name of special assignment 1
Average number of patrol officers assigned to special assignment 1	7.2.1.2	Number of Officers	Average number of officers assigned to special assignment 1
Special assignment 2	7.2.2.1	Name	Name of the special assignment 2
Average number of patrol officers assigned to special assignment 2	7.2.2.2	Number of Officers	Average number of officers assigned to special assignment 2
Special assignment 3	7.2.3.1	Name	Name of the special assignment 3
Average number of patrol officers assigned to special assignment 3	7.2.3.2	Number of Officers	Average number of officers assigned to special assignment 3
Number of staff and command personnel	8.4	Number of Officers and Staff	Number of command personnel (i.e., above the rank of field supervisor) and civilian staff assigned to the patrol unit

PAM Input Data: Historical

Data Item	Table Location	Units	Definition
Data collection period	1.3.1	Days	The number of days in the period used to determine the number of accidents and other CFS
Number of accidents in data collection period	1.3.2	Number of Accidents	Number of accidents reported to the agency during the data collection period
Average service time for accidents	1.3.3	Minutes	Average time required to service an accident; service time includes the time spent by all patrol units for travel, time on scene, report-writing, time for processing or arrest, and investigation (if done by the patrol)
Number of citizen-generated CFS in data collection period	1.3.4	Number of All Other CFS	Number of citizen-generated CFS except accidents reported to the agency during the data collection period
Average service time for citizen-generated CFS	1.3.5	Minutes	Average time required to service a non-accident citizen-generated CFS; service time includes the time spent by all patrol units for travel, time on scene, report-writing, time for processing or arrest, and investigation (if done by the patrol)
Total hours spent on administrative activities by all patrol officers during data collection period	2.2.1	Hours	Total hours spent by all patrol officers on administrative activities during the data collection period
Total on-duty hours on patrol during the data collection period	2.2.2	Hours	Total hours of patrol provided by the agency during the data collection period

PAM Input Data: Historical (continued)

Data Item	Table Location	Units	Definition
Total number of self-initiated contacts by patrol officers during the data collection period	4.2.1	Number of Contacts	The total number of self-initiated contacts by patrol during the data collection period
Total hours spent on self-initiated activities by patrol officers during the data collection period	4.2.2	Hours	Total hours spent by all patrol officers on self-initiated activities during the data collection period
Total on-duty hours on patrol during the data collection period	4.3.2	Hours	Total hours of patrol provided by the agency during the data collection period

PAM Input Data: Agency Practice

Data Item	Table Location	Units	Definition
Average number of benefit off-duty hours per officer per year	1.2.2.2	Hours	The average number of hours a officer takes each year as paid time off (e.g., vacation leave, sick leave, etc)
Average number of hours for non-patrol activities and net comp time per year per officer	1.2.2.3	Hours	The average number of hours a officer spends each year on: (1) on-duty but not on patrol (e.g., special assignments, extended training, etc.) and (2) net comp time (e.g., comp time hours taken minus the overtime hours worked.
Percentage of field supervisor on-duty time spent on administrative activities	1.2.4	Percent of On-duty Time	Average amount of time spent by field supervisors on administrative activities
Average patrol speed on category 1 roadway	1.2.5.2	Miles per Hour	Average speed a patrol unit maintains on category 1 roadway while on uncommitted time; equals the total miles traveled on category 1 roadways divided by the total uncommitted hour spent on category 1 roadways
Average patrol speed on category 2 roadways	1.2.6.2	Miles per Hour	Average speed a patrol unit maintains on category 2 roadway while on uncommitted time; equals the total miles traveled on category 2 roadways divided by the total uncommitted hour spent on category 2 roadways

PAM Input Data: Agency Practice (continued)

Data Item	Table Location	Units	Definition
Average patrol speed on category 3 roadways	1.2.7.2	Miles per Hour	Average speed a patrol unit maintains on category 3 roadway while on uncommitted time; equals the total miles traveled on category 3 roadways divided by the total uncommitted hour spent on category 3 roadways
Percentage of citizen-generated CFS and accidents that cannot be preempted	1.3.6	Percent of Accidents	Percentage of citizen-generated CFS and accidents that cannot be preempted; that is, the patrol unit cannot be dispatched to another accident or CFS before the completion of the current CFS or accident
Percentage of administrative activities that cannot be preempted	1.3.7	Percent of Admin. Activities	Percentage of administrative activities that cannot be preempted; that is, the patrol unit cannot be dispatched to another activity before the completion of the current administrative activity
Percentage of self-initiated/COP activities that cannot be preempted	1.3.8	Percent of Self-Init./COP Activities	Percentage of self-initiated/COP activities that cannot be preempted; that is, the patrol unit cannot be dispatched to another activity before the completion of the current self-initiated/COP activity
Average percentage of time per officer spent on community-oriented policing activities	4.5.1	Percent of Time	Average number of minutes a officer spends on community-oriented policing activities each hour

PAM Input Data: Agency Practice (Continued)

Data Item	Table Location	Units	Definition
Average response speed for emergency reactive activities	5.3.2.2	MPH	Average speed for a patrol unit responding to an emergency CFS
Average response speed for non-emergency reactive activities	5.4.3	MPH	Average speed for a unit responding to a non-emergency CFS
Percentage of time patrol officers assigned to special assignment 1 spend on patrol	7.2.1.3	Percent of Time	Percent of time officers assigned to special assignment 1 spend on patrol activities
Percentage of time patrol officers assigned to special assignment 2 spend on patrol	7.2.2.3	Percent of Time	Percent of time officers assigned to special assignment 2 spend on patrol activities
Percentage of time patrol officers assigned to special assignment 3 spend on patrol	7.2.3.3	Percent of Time	Percent of time officers assigned to special assignment 3 spend on patrol activities

PAM Input Data: Performance

Data Item	Table Location	Units	Definition
Patrol interval on category 1 roadways	1.2.5.3	Hours	The average time a motorist will have to wait on a category 1 roadway for a patrol unit on uncommitted time to pass by
Patrol interval on category 2 roadways	1.2.6.3	Hours	The average time a motorist will have to wait on a category 2 roadway for a patrol unit on uncommitted time to pass by
Patrol interval on category 3 roadways	1.2.7.3	Hours	The average time a motorist will have to wait on a category 3 roadway for a patrol unit on uncommitted time to pass by
Administrative time per hour per officer	2.1	Minutes	Average number of minutes each officer spends on administrative activities each hour
Self-initiated time per hour per officer	4.1	Minutes	Average number of minutes each officer spends on self-initiated activities each hour
Number of self-initiated contacts per shift per officer	4.2.4	Number of Contacts	Average number of self-initiated contacts per officer per shift
Percentage of other CFS and accidents for which at least one officer will be available immediately	5.2.4.1	Percent of other CFS and Accidents	Percent of other CFS and accidents for which at least patrol unit will be available for immediate dispatch to the incident
Average response time for emergency reactive activities	5.3.2.3	Minutes	Average travel time by a patrol unit responding to an emergency CFS
Average response time for non-emergency reactive activities	5.4.4	Minutes	Average travel time by a patrol unit responding to a non-emergency CFS

Appendix 3.3 - PAM Spreadsheet for Patrol Staffing Needs

(With Walworth Co. Values for Comparison)

ITEM NUMBER	DESCRIPTION	VALUE	VALUE
1.1	Name of the APA	Jefferson County	Walworth County

1.2.1	Shift Length (Hrs)	8.00	8.25
1.2.2	Average Work Week (Hrs)	37.46	39.00
1.2.3	Officers per Supervisor	5.67	6.00
1.2.4.1	Pct. Super Time on Admin	0.00	0.00
1.2.4.2	Pct. Super Time on Patrol	0.00	25.00
1.2.5.1	Category 1 Roadway Name	State Highways	State Highways
1.2.5.2	Cat 1 Patrol Speed (MPH)	40.00	40.00
1.2.5.3	Cat 1 Patrol Interval (Hrs)	8.00	8.00
1.2.6.1	Category 2 Roadway Name	County Roads	County Roads
1.2.6.2	Cat 2 Patrol Speed (MPH)	35.00	30.00
1.2.6.3	Cat 2 Patrol Interval (Hrs)	8.00	16.00
1.2.7.1	Category 3 Roadway Name	Township Roads	Township Roads
1.2.7.2	Cat 3 Patrol Speed (MPH)	25.00	20.00
1.2.7.3	Cat 3 Patrol Interval (Hrs)	36.00	84.00

1.3.1	Data Collect Period (Days)	365.00	366.00
1.3.2	# of Accidents in Period	1189.00	1002.00
1.3.3	Avg. Time/Accident (Hrs)	2.00	2.00
1.3.4	# of Other CFS in Period	16806.00	41718.00

1.3.5	Avg. Time/Other CFS (Hrs)	1.00	1.00
1.3.6	Non-Preemp. Other CFS (%)	0.00	10.00
1.3.7	Non-Preemp. Admin. (%)	0.00	5.00
1.3.8	Non-Preemp. S.I. Act. (%)	0.00	5.00

1.4.1	Category 1 Roadway Miles	161.00	223.00
1.4.2	Category 2 Roadway Miles	257.00	200.00
1.4.3	Category 3 Roadway Miles	710.00	885.00

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WORKSHEET 2

ITEM NUMBER	DESCRIPTION	VALUE	VALUE
2.1	Policy-Admin (Min/Hr/Ofr)	12.25	12.00
<hr/>			
2.2.1	Total Admin Time (Hrs) During DC Period	0.00	17725.00
2.2.2	Total On-Duty Hours During DC Period	0.00	83654.00
2.2.3	Fract. Time on Admin.	0.00	0.21
2.2.4	Admin. Min/Hr/Officer	0.00	12.71
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2.3	Max of (2.1) and (2.2.4)	12.25	12.71
	Admin. Min/Hr/Officer	12.25	(ma) 12.71

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WORKSHEET 3

ITEM NUMBER	DESCRIPTION	VALUE	VALUE
3.1.1	Accidents in APA	1189.00	1002.00
3.1.2	Avg Time/Accident (Hrs)	2.00	2.00
3.1.3	Total Accident Time (Hrs)	2378.00	2004.00
3.1.4	Days in Period	365.00	366.00
3.1.5	Accident Time/Day (Hrs)	6.52	5.48

3.2.1	No. Other CFS	16806.00	41718.00
3.2.2	Avg Time/Other CFS (Hrs)	1.00	1.00
3.2.3	Total Other CFS Time (Hrs)	16806.00	41718.00
3.2.4	Days in Period	365.00	366.00
3.2.5	Other CFS Time/Day (Hrs)	46.04	113.98

3.3.1	Avg Workload/Day (Hrs)	52.56	119.46
3.3.2	Shift Length (Hrs)	8.00	8.25
3.3.3	Officers Required per Day	6.57	(Nr) 14.48

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WORKSHEET 4

ITEM NUMBER	DESCRIPTION	VALUE	VALUE
4.1	Policy-S.I. (Min/Hr/Ofr)	5.00	7.50

4.2.1	Total S.I. Patrol Contacts	10724.00	8521.00
4.2.2	Total S.I. Hrs	5362.00	6547.00
4.2.3	Hours/Patrol Contact	0.50	0.77
4.2.4	Objective Contacts/Shift	2.00	2.00
4.2.5	Shift Length	8.00	8.25
4.2.6	# S.I. Contacts/Hr/Ofr.	0.25	0.24
4.2.7	S.I. Objective (Min/Hr/Ofr)	7.50	11.18

4.3.1	Total S.I. Hrs (Same as (4.2.2))	5362.00	6547.00
4.3.2	Total On-duty Ofr Hrs (Same as (2.2.2))	0.00	83654.00
4.3.3	Fract. Time on S.I.	0.00	0.08
4.3.4	Min/Hr/Ofr on S.I.	0.00	4.70

4.4	Max of (4.1), (4.2.7), and (4.3.4)	7.50	11.18
	User Override Option: (Yes=1, No=1)	0.00	0.00
	User Value for SI Minutes per Hour per Officer (ms)	0.00	0.00
	Min/Hr/Officer on SI	7.50	11.18

4.5.1	Time spent on COP (%)	0.00	0.00
4.5.2	Fract. Time on COP.	0.00	0.00

4.5.3	Min/Hr/Ofr on COP	0.00	0.00
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4.6	Min/Hr/Ofr on SI/COP	7.50	(ms)	11.18
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WORKSHEET 5

ITEM NUMBER	DESCRIPTION	VALUE	VALUE
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5.1.1	Shift Length (Hrs)	8.00	8.25
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5.1.2.1	Category 1 Roadway Name	State Highways	State Highways
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5.1.2.2	Miles - Cat 1 Roadways	161.00	223.00
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5.1.2.3	Patrol Speed (MPH)	40.00	40.00
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5.1.2.4	Patrol Interval (Hrs)	8.00	8.00
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5.1.2.5	No of Ofrs: Cat 1 Roadways	1.51	2.09
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5.1.3.1	Category 2 Roadway Name	County Roads	County Roads
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5.1.3.2	Miles - Cat 2 Roadways	257.00	200.00
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5.1.3.3	Patrol Speed (MPH)	35.00	30.00
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5.1.3.4	Patrol Interval (Hrs)	8.00	16.00
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5.1.3.5	No of Ofrs: Cat 2 Roadways	2.75	1.25
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5.1.4.1	Category 3 Roadway Name	Township Roads	Township Roads
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5.1.4.2	Miles - Cat 3 Roadways	710.00	885.00
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5.1.4.3	Patrol Speed (MPH)	25.00	20.00
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5.1.4.4	Patrol Interval (Hrs)	36.00		84.00
5.1.4.5	No of Ofrs: Cat 3 Roadways	2.37		1.58

5.1.5	Total Officers for Patrol	6.63		4.92
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5.2.1.1	Shift Length (Hours)	8.00		8.25
5.2.1.2	Effective Shifts per Day	3.00		2.91

5.2.2.1	Reactive Officers per Day	6.57	(Nr)	14.48
5.2.2.2	Avg. # Ofrs/Shift	2.19	(Nrs)	4.98
5.2.2.8	Admin. Min/Hr/Officer	12.25	(ma)	12.71
5.2.2.9	Min/Hr/Officer on SI/COP	7.50	(ms)	11.18

5.2.4.1	Object. Immed. Response %	80.00	(IR%)	75.00
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5.2.4.2 Determine number of on-duty Officers (Nir%s) from tables in Appendix C

OPTION 1: TABLE LOOKUP

5.3.1.1	Shift Length (Hours)	8.00		8.25
5.3.1.2	Effective Shifts per Day	3.00		2.91
5.3.1.3	Reactive Officers per Day	6.57	(Nr)	14.48
5.3.1.4	Avg. # React. Ofrs/Shift	2.19	(Nrs)	4.98

5.3.2.1	APA Area (Sq. Miles)	583.00		576.00
5.3.2.2	Avg Response Speed (MPH) Emergency Activities	60.00		60.00
5.3.2.3	Performance Objective: Travel Time, Emergency Activities (min)	10.00		8.00

5.3.2.4.1	Calculate "Ktt"	0.07	(Ktt)	0.08
5.3.2.4.2	Calculate "Ktt" X "Ktt"	0.00	(Ktt^2)	0.01
5.3.2.4.3	Max # Ofrs - Emerg. Act.	2.59	(Nmaxtt)	4.00

5.3.3.6	Admin. Min/Hr/Officer	12.25	(ma)	12.71
5.3.3.7	S.I/COP. Min/Hr/Officer	7.50	(ms)	11.18

5.4.1	Shift Length (Hours)	8.00		8.25
5.4.2	APA Area (Sq. Miles)	583.00		576.00
5.4.3	Avg Response Speed (MPH) Non-Emergency Activities	50.00		50.00
5.4.4	Performance Objective: Travel Time, Non-Emerg. Activities (min)	20.00		12.00

5.4.5.1	Calculate "Ktt"	0.04	(Ktt)	0.07
5.4.5.2	Calculate "Ktt" X "Ktt"	0.00	(Ktt^2)	0.00
5.4.5.3	# of Off., Non-Emerg. Act.	2.80	(Nnett)	7.45

5.5	No. of Officers, Travel Time, Larger of (5.3.5) and (5.4.5.3)	2.80	(Ntt)	7.45
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	5.6 Number of Officers for Availability, Maximum of (5.2.4.6.3) or (5.5)-->>	2.80		7.45
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	Number of Officers for Availability	2.80		7.45
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5.7	Number of Officers for Uncommitted Pat., Larger of (5.1.5) and (5.6) -->>	6.63	(Np)	7.45
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WORKSHEET 6

ITEM NUMBER	DESCRIPTION	VALUE		VALUE
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6.1.1	Administrative Time	12.25	(ma)	12.71
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6.1.2	# of Reactive Ofrs	6.57	(Nr)	14.48
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6.1.3	Self-Initiated/COP Time	7.50	(ms)	11.18
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6.1.4	# of Patrol Ofrs	6.63	(Np)	7.45
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6.1.5	Total On-duty Ofrs Needed	19.68		36.43
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6.2.1	Pct. Patrols w/ 2 Ofrs	0.00		0.00
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6.2.2	Fraction w/ 2 Ofrs	0.00		0.00
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6.2.3	Adjustment Factor	1.00		1.00
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6.2.4	Revised (6.1.5) Value	19.68		36.43
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6.3.1	Policy - Min. No. of Ofrs	0.00	(Nmin)	0.00
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6.3.2	Max: (6.2.4) or (6.3.1)	19.68	(No)	36.43
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WORKSHEET 7

ITEM NUMBER	DESCRIPTION	VALUE		VALUE
7.1.1.1	Officers per Supervisor	5.67		6.00
7.1.1.2	Pct. Super Time on Admin	0.00		0.00
7.1.1.3	Frct. Super Time on Admin	0.00		0.00
7.1.1.3	Eff. Ofrs per Supervisor	5.67		6.00
7.1.2	Pct. Super Time on Patrol	0.00		25.00
7.1.3	Frction Super Patrol Time	0.00		0.25
7.1.4	Total # of On-Duty Ofrs	19.68	(No)	36.43
7.1.5	Adjustment Factor	1.00	(Kf)	0.96
7.1.6	Adj. No. of On-Duty Ofrs	19.68	(Nao)	34.98

NOTE: If no special assignment Officers are used, continue with Worksheet 8.

7.2.1.1	Name - Spec. Assign. 1	Truck Enforcement		Court Officer
7.2.1.2	# of Ofrs, Sp. Assign 1	1.00	(Ns1)	1.00
7.2.1.3	% Time on Patrol, S.A. 1	17.00		0.00

7.2.1.4	% Time, Non-Pat., S.A. 1	83.00		100.00
7.2.1.5	Frnt. Time, Non-Pat., SA 1	0.83	(fs1)	1.00
7.2.1.6	Adj'd No. Officers, S.A. 1	0.83	(Nas1)	0.96

NOTE: If personnel are needed for a second special assignment, complete (7.2.2.1) through (7.2.2.6). If not, continue with Worksheet 8.

7.2.2.1	Name - Spec. Assignment 2	MAIT		Spec. Assign. 2 Name
7.2.2.2	# of Ofrs, Sp. Assign 2	1.00	(Ns2)	0.00
7.2.2.3	% Time on Patrol, S.A. 2	22.00		0.00
7.2.2.4	% Time, Non-Pat., S.A. 2	78.00		100.00
7.2.2.5	Frnt. Time, Non-Pat., SA 2	0.78	(fs2)	1.00
7.2.2.6	Adj'd No. Officers, S.A. 2	0.78	(Nas2)	0.00

NOTE: If personnel are needed for a third special assignment, complete (7.2.3.1) through (7.2.3.6). If not, continue with Worksheet 8.

7.2.4	Adj'd No. of On-Duty Ofrs	21.29	(Not)	35.94
7.3	Adj'd # On-Duty Field Sup	3.75	(Nos)	5.99

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WORKSHEET 8

ITEM NUMBER	DESCRIPTION	VALUE	VALUE
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8.1.1	No. of On-Duty Officers	21.29	(Not)	35.94
8.1.2	No. of On-Duty Supervisors	3.75	(Nos)	5.99

8.2.1.1	Shift Length (Hours)	8.00		8.25
8.2.1.2	Hrs/Year/Shift Position	2920.00		3011.25

8.2.3	Average Work Week (Hours)	37.46		39.00
8.2.4	Avg. Paid Hrs/Ofr/Year	1953.27		2033.57

8.2.5.1	Avg Vac Lve/Ofr/Yr (Hrs)	112.00		112.00
8.2.5.2	Avg Hol Lve/Ofr/Yr (Hrs)	0.00		0.00
8.2.5.3	Avg Sick Lve/Ofr/Yr (Hrs)	58.45		58.45
8.2.5.4	Avg Other Lve/Ofr/Yr (Hrs)	76.87		76.87
8.2.5.5	Total Leave/Ofr/Yr (Hrs)	247.32		247.32

8.2.6	Avg. Regularly-Scheduled On-Duty Off Patrol (e.g., special assign., training) Per Officer Per Year	0.00		0.00

8.2.7.1	Avg.Overtime Hrs Worked Per Officer Per Year	164.05	(tot)	164.05
8.2.7.2	Percent of Overtime Hrs Worked on Patrol Per Officer Per Year	50.00	(%otp)	50.00
8.2.7.3	Avg. Comp Time Hrs Taken Per Officer Per Year	89.90	(ctt)	89.90

8.2.7.4	Avg. Net Comp Time Hrs Per Officer Per Year	7.88	(NCT)	7.88
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8.2.8.1	Avg On-Duty Hours On Assignment Per Ofr Per Yr	1698.08		1778.38
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8.2.8.2	Shift Relief Factor	1.72	(SRF)	1.69
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8.3.1	Total No. of Officers	36.60	(Nt)	60.85
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8.3.2	Total No. of Supervisors	6.46	(Ns)	10.14
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8.3.3	Total # of Ofrs and Supers	43.06		70.99
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8.4	Policy-# of Staff & Comm.	0.00		0.00
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8.5.1	No. of Officers	36.60	(Nt)	60.85
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8.5.2	No. of Field Supervisors	6.46	(Ns)	10.14
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8.5.3	No. of Staff & Command	0.00	(Nh)	0.00
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8.5.4	Total Staff Requirement	43.06	(Ntot)	70.99
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APPENDIX 4.1

Jefferson County Corrections Staff Coverage Plan 2008

Post/Position	Notes	Rank	Shift				Flex	Total Posts	Away Relief	Break Relief	# Days	SRF	Total Staff	Rounded	1st	2nd	3rd	Flex
			1st	2nd	3rd	Flex												
Jail Supervisory Staff																		
Jail Commander		CAPT	0	0	0	1	1	N	N	5	1.00	1.00	1	0.00	0.00	0.00	1.00	
Shift Supervisors		SGT	1	1	1	0	3	Y	N	7	1.88	5.64	6	1.88	1.88	1.88	0.00	
Supervisory Subtotal			1	1	1	1	4					5.64	6	1.88	1.88	1.88	1.00	
Total Sergeants Needed												5.64	6	1.88	1.88	1.88		
Total Sergeants Current												6.00	6	2.00	2.00	2.00		
<hr/>																		
Jail Custody Staff																		
Central Control Post		DEP	1	1	1	0	3	Y	Y	7	1.99	5.97	6	1.99	1.99	1.99	0.00	
Booking Rover Post		DEP	3	3	2	0	8	Y	Y	7	1.99	15.92	16	5.97	5.97	3.98	0.00	
Huber Post		DEP	1	1	1	0	3	Y	Y	7	1.99	5.97	6	1.99	1.99	1.99	0.00	
Housing Post		DEP	1	1	0	0	2	Y	Y	7	1.99	3.98	4	1.99	1.99	0.00	0.00	
Custody Subtotal			6	6	4	0	16					31.84	32	11.94	11.94	7.96	0.00	
Total Deputies Needed												32		12	12	8	0	
Total Deputies Current												29		10	11	8	0	

2/8/2009

APPENDIX 4.2

Jefferson County Jail Division Housing Summary

Post Housing Area	Gender	Classification	Capacity	Comments
A - Unit	Male	Cells	8	Supervised by centrally located housing pod deputy
B - Unit	Male	Cells	20	Supervised by centrally located housing pod deputy
C - Unit	Male	Cells	18	Supervised by centrally located housing pod deputy
D - Unit	Male	Cells	16	Supervised by centrally located housing pod deputy
E - Unit	Male	Cells	12	Supervised by centrally located housing pod deputy
F - Unit	Male	Cells	16	Supervised by centrally located housing pod deputy
G - Unit	Male	Cells	20	Supervised by centrally located housing pod deputy
H - Unit	Male	Cells	6	Supervised by centrally located housing pod deputy
HD 1	Male	Dormitory	10	Supervised by roving Huber Deputy
HD 2	Female	Jail Dormitory	16	Supervised by roving Huber Deputy
HD 3	Female	Jail Dormitory	16	Supervised by roving Huber Deputy
HD 4	Male	Huber Dormitory	16	Supervised by roving Huber Deputy
HD 5	Male	Huber Dormitory	30	Supervised by roving Huber Deputy
Holding Jail	Male	Booking	6	Supervised by Booking Rover
Holding Huber	Male	Huber	4	Supervised by roving Huber Deputy
		Total Jail	122	
		Total Huber	92	
		Total	214	

APPENDIX 4.4

Run Date: 12/04/2008

5/2-5/3 Sample

Run Time: 9:04p

Tuesday, January 01, 2008 to Thursday, January 31, 2008

Page: 1

Name	Position	T 1	W 2	H 3	F 4	S 5	S 6	M 7	T 8	W 9	H 10	F 11	S 12	S 13	M 14	T 15	W 16	H 17	F 18	S 19	S 20	M 21	T 22	W 23	H 24	F 25	S 26	S 27	M 28	T 29	W 30	H 31	
Deputy 1		X	X						X	X	X						X	X						X	X	X							X
Deputy 2		X	X	X						X	X						X	X	X						X	X	X						X
Deputy 3			X	X						X	X	X						X	X						X	X	X						
Deputy 4			X	X	X						X	X						X	X	X						X	X						
Deputy 5				X	X						X	X	X						X	X						X	X	X					
Deputy 6				X	X	X					X	X							X	X	X					X	X						
Deputy 7				X	X						X	X	X						X	X						X	X	X					
Deputy 8				X	X	X						X	X						X	X	X						X	X					
Deputy 9					X	X						X	X	X						X	X						X	X	X				
Deputy 10					X	X	X						X	X						X	X	X						X	X				
Deputy 11						X	X	X					X	X	X					X	X							X	X	X			
Deputy 12						X	X	X						X	X					X	X	X							X	X	X		
Deputy 13		X						X	X					X	X	X							X	X					X	X	X		
Deputy 14		X						X	X	X					X	X							X	X	X					X	X	X	

APPENDIX 4.5

Position Classification Factors - 2008 Jail Sergeants (5/2 - 5/3 - 8.5 hour rotation)

Number of Days per year agency closed	0.00
Number of Days per year agency opened	385.00
Average number of regular days off per employee per year	118.00
Average number of vacation days taken per employee per year	16.17
Average number of holidays taken per employee per year	9.50
Average number of training days taken per employee per year	6.33
Average number of sick days taken per employee per year	0.67
Average number of disciplinary days taken per employee per year	6.50
Average number of accumulated overtime (A/O) days taken per employee per year	13.67
Average number of special assignment (S/A) days taken per employee per year	0.50
Total number of days unavailable per employee per year	171.33
Average number of work days per employee per year	193.67
Lunches and break factors (30 min / 510 min workday)	11.39
Average work days with break factor	182.28
Shift Relief factor [SRF] w/ Breaks (7 day position) [Y/Y]	2.00
Shift Relief factor [SRF] w/out Breaks (7 day position) [Y/N]	1.88

Year 2007 Data

6 Staff Members (3 shifts)		Total	Average
Vacation		97.00	16.17
Holiday		57.00	9.50
Training		38.00	6.33
Sick		4.00	0.67
Disciplinary		39.00	6.50
A/O		82.00	13.67
SA		3.00	0.50

APPENDIX 4.6

Position Classification Factors - 2008 Jail Deputies (5/2 - 5/3 - 8 hour rotation)

Number of Days per year agency closed	0.00
Number of Days per year agency opened	365.00
Average number of regular days off per employee per year	118.00
Average number of vacation days taken per employee per year	11.08
Average number of holidays taken per employee per year	9.17
Average number of training days taken per employee per year	12.74
Average number of military days taken per employee per year	1.77
Average number of sick days taken per employee per year	6.12
Average number of disciplinary days taken per employee per year	0.00
Average number of accumulated overtime (A/O) days taken per employee per year	4.67
Average number of SWAT (SWA) days taken per employee per year	0.50
Average number of special assignment (S/A) days taken per employee per year	3.33
Average number of FMLA days taken per employee per year	1.38
Average number of Berevment days taken per employee per year	0.28
Average number of Dive days taken per employee per year	0.11
Average number of Temporary Light Duty (TLD) days taken per employee per year	0.00
Total number of days unavailable per employee per year	169.15
Average number of work days per employee per year	195.85
Lunches and break factors (30 min / 480 min workday)	12.24
Average work days with break factor	183.61
Shift Relief factor [SRF] w/ Breaks (7 day position) [Y/Y]	1.99
Shift Relief factor [SRF] w/out Breaks (7 day position) [Y/N]	1.86

Year 2007 Data

28 Staff Members (3 shifts)		
	Total	Average
Vacation	313.00	11.08
Holiday	259.00	9.17
Training	360.00	12.74
Military	50.00	1.77
Sick	173.00	6.12
Disciplinary	0.00	0.00
A/O	132.00	4.67
SWA	14.00	0.50
SA	94.00	3.33
FMLA	39.00	1.38
Berevment	8.00	0.28
Dive	3.00	0.11
TLD	0.00	0.00

APPENDIX 4.7

Jail Deputy / Sergeant Time Off Data Elements

Deputy	8-Jan	8-Feb	8-Mar	8-Apr	8-May	8-Jun	8-Jul	8-Aug	8-Sep	8-Oct	8-Nov	8-Dec	Total	Projected	Ave/Officer
Assigned	27	27	27	27	27	28	28	29	29				249	332.00	27.87
Vacation	13	19	19	10	19	22	27	40	29				198	284.00	9.54
Holiday	22	22	21	7	28	25	28	40	19				210	280.00	10.12
Training	19	42	27	8	36	30	23	38	51				274	365.33	13.20
Military	1	2	0	0	2	10	0	0	3				18	24.00	0.87
Sick	8	27	15	12	12	29	17	15	22				157	209.33	7.57
Disciplinary	4	1	1	0	1	0	0	0	0				7	9.33	0.34
A/O	5	3	9	7	8	10	13	4	7				68	88.00	3.18
SWA	2	2	2	2	2	4	2	1	2				19	25.33	0.92
SA	2	6	0	0	3	7	2	1	1				22	29.33	1.06
FMLA	0	9	8	0	0	0	0	0	0				17	22.67	0.82
Berevment	0	0	1	0	0	0	0	0	0				1	1.33	0.05
Dive	0	0	0	2	2	2	5	2	2				15	20.00	0.72
TLD	0	0	0	1	0	0	0	0	0				1	1.33	0.05
Total	103	180	130	76	140	167	143	170	165	0	0	0	1254	1672.00	76.10

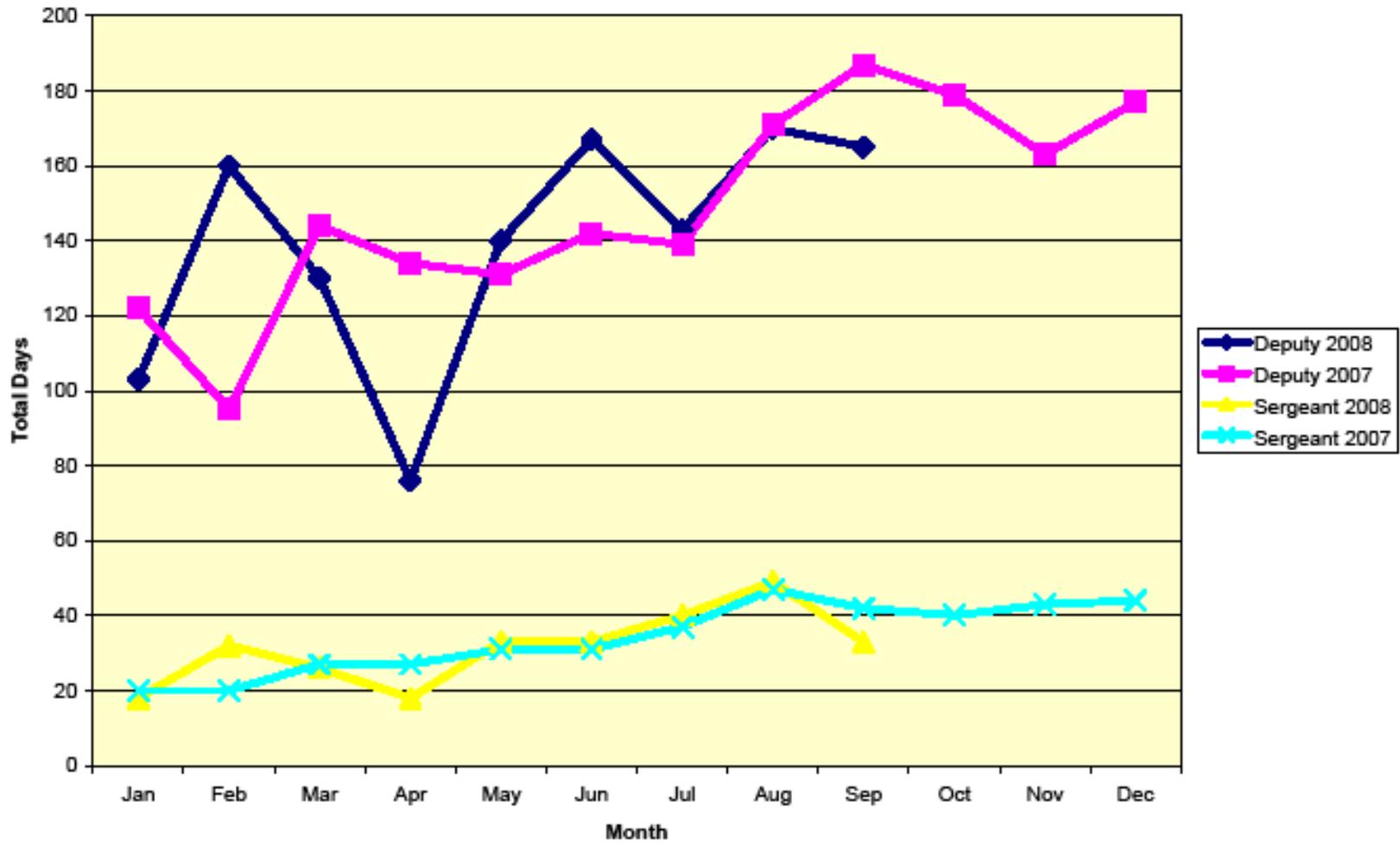
Deputy	7-Jan	7-Feb	7-Mar	7-Apr	7-May	7-Jun	7-Jul	7-Aug	7-Sep	7-Oct	7-Nov	7-Dec	Total	Projected	Ave/Officer
Assigned	27	27	27	27	27	27	28	29	30	30	30	30	339	339.00	28.25
Vacation	5	2	18	18	17	25	21	30	24	43	52	58	313	313.00	11.08
Holiday	19	23	21	18	21	34	35	19	18	16	20	15	259	259.00	9.17
Training	44	23	38	23	36	28	6	59	58	34	13	0	380	380.00	12.74
Military	4	2	7	18	2	2	0	1	6	4	2	2	50	50.00	1.77
Sick	15	6	29	12	14	4	17	5	22	7	15	27	173	173.00	6.12
Disciplinary	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00
A/O	1	8	2	13	10	16	19	17	19	19	8	0	132	132.00	4.67
SWA	1	1	1	2	1	1	1	1	1	1	1	2	14	14.00	0.50
SA	5	2	0	2	0	3	0	3	11	23	22	23	94	94.00	3.33
FMLA	0	0	0	0	0	1	12	7	0	0	0	19	39	39.00	1.38
Berevment	1	1	1	1	3	1	0	0	0	0	0	0	8	8.00	0.28
Dive	0	0	0	0	0	0	0	0	0	2	0	1	3	3.00	0.11
TLD	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00
Total	122	95	144	134	131	142	139	171	187	179	163	177	1784	1784.00	79.40

Sergeant	8-Jan	8-Feb	8-Mar	8-Apr	1-May	8-Jun	8-Jul	8-Aug	8-Sep	8-Oct	8-Nov	8-Dec	Total	Projected	Ave/Officer
Assigned	6	6	6	6	6	6	6	6	6				54	72.00	6.00
Vacation	2	1	1	0	4	10	23	20	6				67	89.33	14.89
Holiday	0	6	4	2	4	8	2	9	8				43	57.33	9.58
Training	1	9	6	3	5	2	3	0	6				35	46.67	7.78
Sick	4	4	3	2	2	2	2	2	1				22	29.33	4.89
Disciplinary	0	0	0	0	0	0	0	3	0				3	4.00	0.67
A/O	5	6	6	4	8	5	4	9	6				53	70.67	11.78
SA	0	0	0	1	4	0	0	0	0				5	6.67	1.11
Total	18	32	26	18	33	33	40	49	33	0	0	0	282	376.00	56.87

Sergeant	7-Jan	7-Feb	7-Mar	7-Apr	7-May	7-Jun	7-Jul	7-Aug	7-Sep	7-Oct	7-Nov	7-Dec	Total	Projected	Ave/Officer
Assigned	6	6	6	6	6	6	6	6	6	6	6	6	72	72.00	6.00
Vacation	5	1	0	10	1	7	14	7	3	15	13	21	97	97.00	16.17
Holiday	2	7	6	3	10	9	4	3	5	4	0	4	57	57.00	9.50
Training	0	1	8	0	4	3	0	5	0	3	3	11	38	38.00	6.33
Sick	3	2	3	0	2	1	1	2	1	2	4	0	4	4.00	0.67
Disciplinary	0	0	0	0	0	0	3	20	16	0	0	0	39	39.00	6.50
A/O	4	3	4	8	7	5	9	4	10	9	17	2	82	82.00	13.67
SA	0	0	0	0	1	0	0	0	1	1	0	0	3	3.00	0.50
Total	20	20	27	27	31	31	37	47	42	40	43	44	392	392.00	59.33

APPENDIX 4.8

Time Off By Month



APPENDIX 4.9

Jefferson County Sheriff's Department Deputy Benefit Time Summary

Vacation

1-6 years	2 weeks vacation
6-13 years	3 weeks vacation
13-19 years	4 weeks vacation
19+	5 weeks vacation

Holidays

10 holidays/year paid out in December if not used (not to exceed 5 days)

Sick Time

1 day/month earned up to 120 days
After 120 then additional 30 days available at a rate of ½ day/month
(When out of sick time, any other benefit time can be applied)

Bereavement Pay

5 consecutive days for immediate family
3 consecutive days for brother/sister
1 day for in-laws, grandparents

Leaves of Absence

4 calendar months available
1 year additional available for medical (may be extended)

Hazardous Occupation Pay

45 days available
1 day/month not to exceed 84 days

APPENDIX 4.10

Body #	Last Name	First Name	Shift	Spc	Gender	Rank	Start Date	Date of Report	Years	Rounded	Vacation days Earned	Number Calculated	Holidays	Total
427			1		F	DEP	10/3/1994	12/4/2008	14.1694	14	20	20	10	30
420			1	Y	F	SGT	6/14/1993	12/4/2008	15.4722	15	20	0	0	0
429			1	Y	M	SGT	10/31/1994	12/4/2008	14.0944	14	20	0	0	0
426			1		M	DEP	9/26/1994	12/4/2008	14.1889	14	20	20	10	30
408			1		M	DEP	2/19/1992	12/4/2008	16.7917	16	20	20	10	30
543			1		M	DEP	11/3/2003	12/4/2008	5.0861	5	10	10	10	20
385			1	Y	M	CAPT	7/2/1990	12/4/2008	18.4222	18	20	0	0	0
503			1		F	DEP	10/6/1997	12/4/2008	11.1611	11	15	15	10	25
401			1		F	DEP	9/24/1991	12/4/2008	17.1944	17	20	20	10	30
409			1		M	DEP	4/1/1992	12/4/2008	16.6750	16	20	20	10	30
402			1		F	DEP	9/24/1991	12/4/2008	17.1944	17	20	20	10	30
428			1		F	DEP	10/3/1994	12/4/2008	14.1694	14	20	20	10	30
446			1		M	DEP	4/14/1997	12/4/2008	11.6389	11	15	15	10	25
280														
526			2		M	DEP	1/15/2001	12/4/2008	7.8961	7	15	15	10	25
305			2	Y	M	SGT	9/1/1975	12/4/2008	33.2583	33	25	0	0	0
539			2		F	DEP	6/23/2003	12/4/2008	5.4472	5	10	10	10	20
435			2	Y	F	SGT	4/30/1995	12/4/2008	13.5944	13	20	0	0	0
548			2		M	DEP	8/15/2005	12/4/2008	3.3028	3	10	10	10	20
550			2		M	DEP	2/13/2006	12/4/2008	2.8083	2	10	10	10	20
537			2		M	DEP	9/10/2001	12/4/2008	7.2333	7	15	15	10	25
532			2		M	DEP	4/23/2001	12/4/2008	7.6139	7	15	15	10	25
541			2		F	DEP	7/7/2003	12/4/2008	5.4083	5	10	10	10	20
538			2		M	DEP	12/26/2001	12/4/2008	6.9389	6	15	15	10	25
549			2		M	DEP	2/13/2006	12/4/2008	2.8083	2	10	10	10	20
551			2		F	DEP	4/24/2006	12/4/2008	2.6111	2	10	10	10	20
220														
544			3		F	DEP	12/1/2003	12/4/2008	5.0083	5	10	10	10	20
417			3	Y	M	SGT	1/1/1993	12/4/2008	15.8972	15	20	0	0	0
416			3		M	DEP	11/30/1992	12/4/2008	16.0111	16	20	20	10	30
518			3		M	DEP	6/5/2000	12/4/2008	8.4972	8	15	15	10	25
505			3		M	DEP	6/23/2003	12/4/2008	5.4472	5	10	10	10	20
450			3	Y	M	SGT	6/30/1997	12/4/2008	11.4278	11	15	0	0	0
556			3		F	DEP	6/19/2007	12/4/2008	1.4583	1	10	10	10	20
560			3		F	DEP	8/20/2008	12/4/2008	0.2889	0	0	0	10	10
557			3		M	DEP	8/5/2007	12/4/2008	1.3278	1	10	10	10	20
559			3		F	DEP	6/10/2008	12/4/2008	0.4833	0	0	0	0	0

145

APPENDIX 4.11

Jefferson County Jail Activity Schedule

	Bookings	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
0:00	4.39							
0:30								
1:00	3.93							
1:30								
2:00	3.16							
2:30								
3:00	3.84							
3:30								
4:00	1.92							
4:30								
5:00	1.65							
5:30								
6:00	2.79							
6:30		Shift Change						
7:00	1.42	Shift Change						
7:30								
8:00	2.33	Church	ESL			ESL	ESL	Visiting
8:30		Visiting						
9:00	2.79			Bible Study	AA			
9:30								
10:00	4.03							
10:30								
11:00	3.48							
11:30								
12:00	6.08			Basic Skill		Basic Skill		Bible Study
12:30		Visiting						Visiting
13:00	3.52		GED		GED		GED	
13:30								
14:00	5.22							
14:30		Shift Change						
15:00	8.46	Shift Change						
15:30								
16:00	6.08							
16:30								
17:00	5.76				Basic Skill			
17:30								
18:00	7.23	Visiting	AA	ESL		Bible Study		Visiting
18:30				Visiting	Visiting	Visiting		
19:00	5.81							
19:30								
20:00	4.39							
20:30								
21:00	4.16							
21:30								
22:00	3.66							
22:30		Shift Change						
23:00	3.89	Shift Change						
23:30								

APPENDIX 4.12

Run Date: 12/13/2008

2/3-2/2-3/2 12-hour

Run Time: 1:26p

Tuesday, January 01, 2008 to Thursday, January 31, 2008

Page: 1

Name	Position	T 1	W 2	H 3	F 4	S 5	S 6	M 7	T 8	W 9	H 10	F 11	S 12	S 13	M 14	T 15	W 16	H 17	F 18	S 19	S 20	M 21	T 22	W 23	H 24	F 25	S 26	S 27	M 28	T 29	W 30	H 31	
Deputy 1		X			X	X	X			X	X				X	X			X	X	X			X	X				X	X			
Deputy 2		X			X	X	X			X	X				X	X			X	X	X			X	X				X	X			
Deputy 3		X			X	X	X			X	X				X	X			X	X	X			X	X				X	X			
Deputy 4		X			X	X	X			X	X				X	X			X	X	X			X	X				X	X			
Deputy 5		X			X	X	X			X	X				X	X			X	X	X			X	X				X	X			
Deputy 6		X			X	X	X			X	X				X	X			X	X	X			X	X				X	X			
Deputy 7		X			X	X	X			X	X				X	X			X	X	X			X	X				X	X			
Deputy 8			X	X				X	X			X	X	X			X	X				X	X			X	X	X			X	X	
Deputy 9			X	X				X	X			X	X	X			X	X				X	X			X	X	X			X	X	
Deputy 10			X	X				X	X			X	X	X			X	X				X	X			X	X	X			X	X	
Deputy 11			X	X				X	X			X	X	X			X	X				X	X			X	X	X			X	X	
Deputy 12			X	X				X	X			X	X	X			X	X				X	X			X	X	X			X	X	
Deputy 13			X	X				X	X			X	X	X			X	X				X	X			X	X	X			X	X	
Deputy 14			X	X				X	X			X	X	X			X	X				X	X			X	X	X			X	X	
Deputy 15		X			X	X	X			X	X				X	X			X	X	X			X	X				X	X			
Deputy 16		X			X	X	X			X	X				X	X			X	X	X			X	X				X	X			
Deputy 17		X			X	X	X			X	X				X	X			X	X	X			X	X				X	X			
Deputy 18		X			X	X	X			X	X				X	X			X	X	X			X	X				X	X			
Deputy 19		X			X	X	X			X	X				X	X			X	X	X			X	X				X	X			
Deputy 20		X			X	X	X			X	X				X	X			X	X	X			X	X				X	X			
Deputy 21		X			X	X	X			X	X				X	X			X	X	X			X	X				X	X			
Deputy 22			X	X				X	X			X	X	X			X	X				X	X			X	X	X			X	X	
Deputy 23			X	X				X	X			X	X	X			X	X				X	X			X	X	X			X	X	
Deputy 24			X	X				X	X			X	X	X			X	X				X	X			X	X	X			X	X	
Deputy 25			X	X				X	X			X	X	X			X	X				X	X			X	X	X			X	X	
Deputy 26			X	X				X	X			X	X	X			X	X				X	X			X	X	X			X	X	
Deputy 27			X	X				X	X			X	X	X			X	X				X	X			X	X	X			X	X	
Deputy 28			X	X				X	X			X	X	X			X	X				X	X			X	X	X			X	X	
Deputy 29			X	X				X	X			X	X	X			X	X				X	X			X	X	X			X	X	
Shift 1		7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
Shift 2		8	7	7	8	8	8	7	7	8	8	7	7	7	8	8	7	7	8	8	8	8	7	8	8	8	7	7	7	8	8	7	7

APPENDIX 4.13

Position Classification Factors - 2008 Jail Deputies (2/3 - 2/2 - 3/2 12 hour rotation)

Number of Days per year agency closed	0.00	
Number of Days per year agency opened	365.00	
Average number of regular days off per employee per year	183.00	
Average number of vacation days taken per employee per year	11.08	
Average number of holidays taken per employee per year	9.17	
Average number of training days taken per employee per year	12.74	
Average number of military days taken per employee per year	1.77	
Average number of sick days taken per employee per year	6.12	
Average number of disciplinary days taken per employee per year	0.00	
Average number of accumulated overtime (A/O) days taken per employee per year	4.67	
Average number of SWAT (SWA) days taken per employee per year	0.50	
Average number of special assignment (S/A) days taken per employee per year	3.33	
Average number of FMLA days taken per employee per year	1.38	
Average number of Berevement days taken per employee per year	0.28	
Average number of Dive days taken per employee per year	0.11	
Average number of Temporary Light Duty (TLD) days taken per employee per year	0.00	
Total number of days unavailable per employee per year	234.15	
Average number of work days per employee per year	130.85	
Lunches and break factors (30 min / 480 min workday)	8.18	
Average work days with break factor	122.67	
Shift Relief factor [SRF] w/ Breaks (7 day position) [Y/Y]	2.98	
Shift Relief factor [SRF] w/out Breaks (7 day position) [Y/N]	2.79	

Year 2007 Data

28 Staff Members (3 shifts)

	Total	Average
Vacation	313.00	11.08
Holiday	259.00	9.17
Training	380.00	12.74
Military	50.00	1.77
Sick	173.00	6.12
Disciplinary	0.00	0.00
A/O	132.00	4.67
SWA	14.00	0.50
SA	94.00	3.33
FMLA	39.00	1.38
Berevement	8.00	0.28
Dive	3.00	0.11
TLD	0.00	0.00

APPENDIX 4.14

Jefferson County Corrections Staff Coverage Plan 2008 (12-hour Schedule)

Post/Position	Notes	Rank	Shift				Total Posts	Away Relief	Break Relief	# Days	SRF	Total Staff	Rounded	1st	2nd	3rd	Flex
			1st	2nd	3rd	Flex								1st	2nd	3rd	Flex
Jail Supervisory Staff																	
Jail Commander		CAPT	0	0	0	1	1	N	N	5	1.00	1.00	1	0.00	0.00	0.00	1.00
Shift Supervisors		SGT	1	1	1	0	3	Y	N	7	1.88	5.64	6	1.88	1.88	1.88	0.00
Supervisory Subtotal			1	1	1	1	4					5.64	6	1.88	1.88	1.88	1.00
Total Sergeants Needed												5.64	6	1.88	1.88	1.88	
Total Sergeants Current												6.00	6	2.00	2.00	2.00	
<hr/>																	
Jail Custody Staff																	
Central Control Post		DEP	1	1	0	0	2	Y	Y	7	2.98	5.96	6	2.98	2.98	0.00	0.00
Booking Rover Post		DEP	3	3	0	0	6	Y	Y	7	2.98	17.88	18	8.94	8.94	0.00	0.00
Huber Post		DEP	1	1	0	0	2	Y	Y	7	2.98	5.96	6	2.98	2.98	0.00	0.00
Housing Post		DEP	1	1	0	0	2	Y	Y	7	2.98	5.96	6	2.98	2.98	0.00	0.00
Custody Subtotal			6	6	0	0	12					35.76	36	17.88	17.88	0.00	0.00
Total Deputies Needed												36		18	18	0	0
Total Deputies Current												29		10	11	8	0

APPENDIX 4.15

Jefferson County Jail Population Groups

Sentenced Inmates No Pending Charges	81
Sentenced Inmates with Pending Charges	9
Sentenced Inmates with Other County/State/Federal Holds.....	7
Sentenced Inmates Serving Sentence At another County.....	11
Sentenced Inmates with Probation Violation Holds	6
Huber (Work Release Inmates).....	39
Pre-Sentenced Inmates (Pending Charges).....	21
Probation Violation Holds	28
Probation Violation Holds with Pending Charges	3
Probation Violation Holds with Other Sentence.....	1
Probation Revocation Awaiting Sentencing.....	3
Probation Revocation Awaiting Sentencing with Pending Charges.....	3
Probation Revocation Awaiting Sentencing with Other.....	2
Sentence to Prison Awaiting Transport	1
Contracted Beds with Other County/State/Federal Inmates	1
Other County/State/Federal Holds Awaiting Transport	2
Total Inmates	218