

## **10-Hour Shifts: A Good Fit for Law Enforcement Agencies**

There is no question that 10-hour shifts are an attractive option for many police officers. After all, they provide more days off than 8-hour shift schedules (52 additional days a year) and the workdays are a lot more tolerable than 12-hour shifts. In our shiftwork consulting practice, we must receive at least one inquiry a week from a patrol officer asking how to make 10-hour shifts work for their group.

Despite their popularity with officers, 10-hour shifts are not used by many law enforcement agencies. Although the morale-boosting benefits of changing to 10-hour shifts are obvious, the cost justification isn't. Moreover, the lack of information and scarcity of relevant examples make the effort difficult and time-consuming. As a result, some police departments have delegated responsibility to the officers themselves. If they can come up with a 10-hour schedule that works, the department will take it into consideration. Given the complexity of the task, this usually marks the end of the endeavor.

Even among departments that are using 10-hour shifts, there seems to be little appreciation for their true potential. We are not aware of any departments that take advantage of the overlapping nature of 10-hour shifts. Instead, they set the shift start and end times to make them convenient for the officers, or they make the start times similar to those used with 8-hour shifts. By doing this, they are missing a huge opportunity to match the number of officers on duty with the activity levels, such as the number of in-coming phone calls.

When three 10-hour shifts are squeezed into a 24-hour day, there will be six hours of overlapping shifts ( $30 - 24 = 6$ ). In most other industries, this overlap is wasted; it is an inefficient use of their

resources. For police departments, however, the overlap actually can be beneficial. As this article will show, 10-hour shifts often can be an effective approach for maintaining the proper coverage around the clock, thus reducing overtime, eliminating over-staffing, and ensuring acceptable service levels on a 24/7 basis.

### **Variable Workloads**

Most industries that operate around-the-clock have a fairly constant workload. They need the same number of workers on every shift to maintain a consistent level of production. They have “level coverage requirements.”

Law enforcement agencies, on the other hand, usually have certain times of the day in which they could use additional officers to respond to the increased activity levels and workloads. These agencies have variable coverage requirements. The following options can be used to address these periodic variations, though some are obviously better than others:

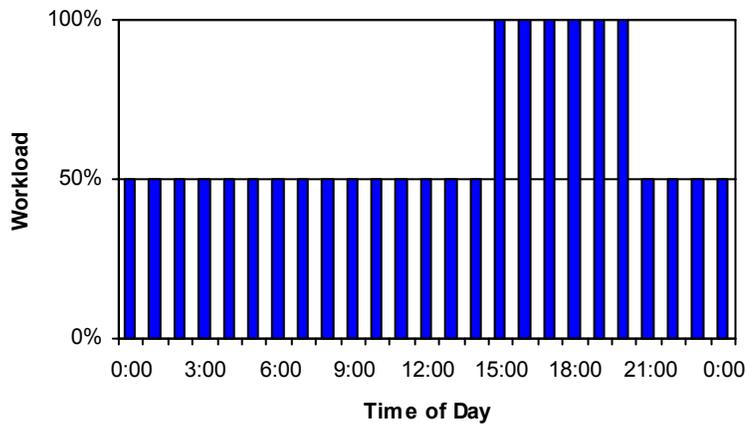
- **Staff for the peaks.** Schedule enough officers to meet the peak workload at all times. For example, schedule four officers to work every shift, even though only two or three are needed for most of the day. This approach will maintain service levels during the busy times, but it results in overstaffing during the less busy times.
- **Ignore the peaks.** Schedule enough officers to meet the minimum staffing requirements and simply ignore the peak activity periods. For example, schedule two officers to work every shift, even though three or four officers really could be used during the peak period. This approach will result in lower service levels and increased risks to officers who work during the peak periods.

- **Use overtime.** Schedule enough officers to meet the minimum staffing requirements and use overtime to increase the number of officers on duty during the peak activity periods. Officers working a shift that ends near the start of the peak period could extend their shift. Officers starting a shift around the end of the peak period could come in early. A third possibility is to bring in officers who have the day off. The problem with continued reliance on overtime is that, over the long term, there could be negative consequences such as officer burnout, morale problems, increased absenteeism, and higher employee turnover.
- **Hire part-time officers.** Another way to handle the increased workload is to supplement the regular staff with part-time employees. They could be assigned to a shorter shift that matches the peak workload period. This can be an effective solution in smaller departments, but it is not always easy to find **qualified** personnel who are willing to work on a part-time basis.
- **Switch to 10-hour shifts.** 10-hour shifts will increase the number of officers on duty while the shifts overlap. By aligning these overlapping shifts with the periods of greatest activity, the coverage is better matched with the workload. The remainder of this article will discuss the ways 10-hour shifts can be applied to the most common situations encountered by law enforcement agencies.

## Single Peak Workload Period

The daily variations in police activity levels (and hence workload) tend to follow a regular pattern. A simple example is shown in Figure 1 below, in which the workload increases by a substantial amount every evening between 1500 and 2100 (3 p.m. to 9 p.m.).

**Figure 1: Daily Workload with a Single Peak Period**



10-hour shifts can be scheduled to increase the coverage during this peak period by overlapping two of the three shifts as shown below:

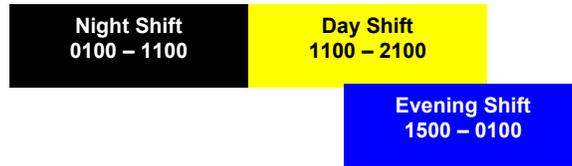
Day shift: 1100 to 2100 (11 a.m. to 9 p.m.)

Evening shift: 1500 to 0100 (3 p.m. to 1 a.m.)

Night shift: 0100 to 1100 (1 a.m. to 11 a.m.)

In this schedule, the Day shift and Evening shift overlap from 1500 to 2100, which corresponds with the period of highest activity. The number of officers on duty during this six hour period would be double the number working the rest of the day. This is illustrated in Figure 2 below.

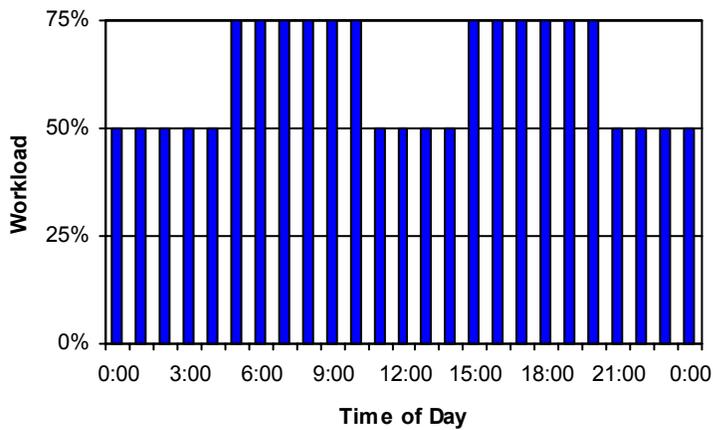
**Figure 2: Overlapping Coverage for a Single Peak Period**



**Two Peak Workload Periods**

Another example of workload variations is shown in Figure 3 below. In this case, there are two peak periods that roughly correspond with the work commute times. One peak runs from 0500 to 1100, and the other runs from 1500 to 2100.

**Figure 3: Daily Workload with Two Peak Periods**

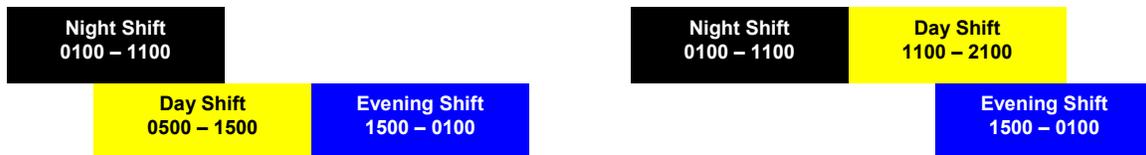


Two periods of increased activity can be addressed by using two different shift schedules. Two schedules that match the workload pattern in Figure 3 are shown below:

Day shift:	0500 to 1500	1100 to 2100
Evening shift:	1500 to 0100	1500 to 0100
Night shift:	0100 to 1100	0100 to 1100

In the first schedule, the Night shift overlaps the Day shift from 0500 to 1100 to add extra coverage during the morning peak. In the second schedule, the Day shift overlaps the Evening shift from 1500 to 2100 to add coverage for the evening peak. These two overlapping schedules are illustrated in Figure 4 below.

**Figure 4: Overlapping Coverage for Two Peak Periods**



### Shorter Peak Periods

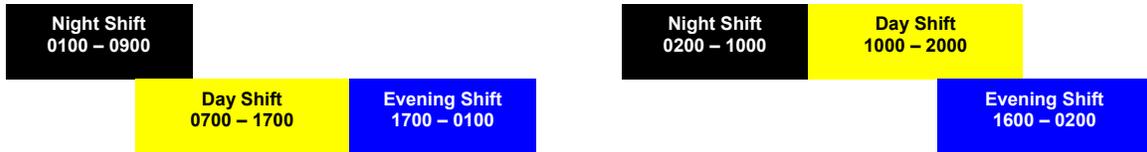
In some cases, the peak workload period may last less than six hours. One way to reduce the length of the extra coverage would be to use of combination of 8-hour and 10-hour shifts. If the workload peaks ran from 0700 to 0900 (two hours long) and from 1600 to 2000 (four hours long), the two schedules might look like the ones shown below:

Day shift:	0700 to 1700	1000 to 2000
Evening shift:	1700 to 0100	1600 to 0200
Night shift:	0100 to 0900	0200 to 1000

In the first schedule, both the Evening and Night shifts are 8 hours long, and the Night shift overlaps the Day shift from 0700 to 0900 (two hours). In the second schedule, only the Night

shift is 8 hours long, and the Day shift overlaps the Evening shift from 1600 to 2000 (four hours). This is shown in Figure 5 below.

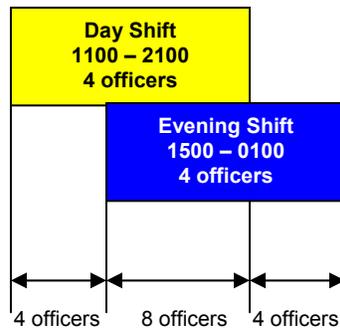
**Figure 5: Overlapping Coverage for Shorter Peak Periods**



### Smaller Peak Volumes

If each shift is assigned the same number of officers, then the number on duty during a shift overlap is double the number during the rest of the day. As shown in the example below (Figure 6), there are four officers on Day shift and four on Evening shift. From 1500 to 2100, there would be eight officers (four from each shift).

**Figure 6: 100% Greater Peak Coverage with One Set of Overlapping Shifts**

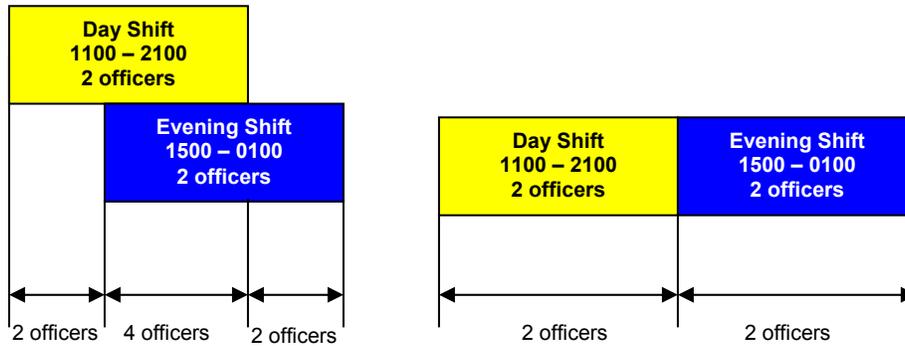


That's great if the workload doubles during the peak. But suppose the peak workload was only 50% greater than the normal workload. The number of officers needed would be six instead of eight. This situation can be addressed by creating two schedules, such as those shown below:

Day shift:	0800 to 1800	0800 to 1600
Evening shift:	1200 to 2200	1600 to 0000

Note that only the first schedule has an overlap from 1200 to 1800. Also note that the second schedule consists of 8-hour shifts to avoid any overlap. If two officers worked each shift on both schedules, there would be at least four officers on duty at all times (two from the first schedule and two from the second schedule). During the peak period (1200 to 1800), there would be six officers (four from the first schedule and two from the second schedule). This is shown in Figure 7 below:

**Figure 7: 50% Greater Peak Coverage with Two Sets of Shifts (One Overlapping)**



## Staffing Limitations

Today's law enforcement agencies are often challenged by strict budget or headcount restrictions. 10-hour shifts may be helpful in some situations. Unlike 8-hour or 12-hour schedules that provide the same level of coverage on all shifts, 10-hour shifts overlap, which might make more efficient use of the available staff and reduce the need for overtime.

10-hour shift schedules can be operated with as little as five officers. An example of a schedule for five crews (one officer per crew) is shown in Figure 8 below:

**Figure 8: 10-Hour Shift Schedule with Five Crews**

Crew / Week	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Hours
A / Week 1	-	D10	D10	D10	-	-	E10	40
B / Week 2	E10	E10	E10	-	-	-	N10	40
C / Week 3	N10	N10	-	-	D10	D10	D10	50
D / Week 4	D10	-	-	E10	E10	E10	-	40
E / Week 5	-	-	N10	N10	N10	N10	-	40

This schedule consists of five crews working a five-week rotating schedule. When the schedule first starts, the crews are assigned to specific weeks in the cycle. For example, Crew A is assigned to start in week 1 and Crew B is assigned to start in week 2, etc. At the end of each week, the crews rotate down to the next week in the cycle. When a crew completes the 5<sup>th</sup> week, they rotate up to week 1.

This schedule does have one week (week 3) with 10 hours of built-in overtime. That's ten hours of overtime every five weeks or an average to two hours per week for each officer. This is equal to the overtime found in most 8-hour schedules and less than most 12-hour schedules.

Note that there is one crew scheduled to work on each shift throughout the week. If more than one officer is needed to handle the non-peak workload periods, one option is to increase the size of the crew. Each unit of coverage will require five officers to operate, i.e. the staffing ratio is 5 to 1. If the minimal coverage requirement is three officers, the schedule in Figure 8 would take fifteen officers to operate. If the minimal coverage requirement is five officers, the schedule would take 25 officers to operate.

One way to reduce the staffing requirement is to increase the amount of built-in overtime. An example of a schedule with more overtime is shown in Figure 9 below:

**Figure 9: 10-Hour Shift Schedule with Nine Crews**

Crew / Week	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Hours
A / Week 1	-	-	D10	D10	D10	-	D10	40
B / Week 2	D10	D10	D10	-	-	D10	D10	50
C / Week 3	D10	D10	-	D10	D10	D10	-	50
D / Week 1	-	-	A10	A10	A10	-	A10	40
E / Week 2	A10	A10	A10	-	-	A10	A10	50
F / Week 3	A10	A10	-	A10	A10	A10	-	50
G / Week 1	-	-	N10	N10	N10	-	N10	40
H / Week 2	N10	N10	N10	-	-	N10	N10	50
I / Week 3	N10	N10	-	N10	N10	N10	-	50

This schedule consists of nine crews working a three-week fixed schedule. When the schedule first starts, the crews are assigned to specific weeks in the cycle. For example, Crew A is assigned to start in week 1 and Crew B is assigned to start in week 2, etc. At the end of each week, the crews rotate down to the next week in the cycle. When a crew completes the 3<sup>rd</sup> week, they rotate up to week 1.

This schedule has two weeks with 10 hours of built-in overtime. That's 20 hours of overtime every three weeks for each officer. This is a lot more than the schedule shown in Figure 8, but it does reduce the staffing ratio. With this schedule, nine crews are needed to provide two units of coverage on each shift (staffing ratio =  $9 / 2$  or 4.5).

### **Summary**

10-hour shifts are particularly well-suited to the variable workloads found in law enforcement agencies. They can be used to increase the number of officers on patrol during single or multiple periods of increased activity during the day. Peak workload periods that last less than six hours can be accommodated by mixing 8-hour and 10-hour shifts. Smaller peaks can be handled with two sets of schedules, one set that overlaps and another that doesn't. Departments with limited staffing may be able to use 10-hour shifts by choosing a schedule that has more built-in overtime.

Law enforcement agencies may want to consider 10-hour shifts as an alternative to the traditional 8-hour and 12-hour shifts. The potential benefits certainly warrant a study to determine whether 10-hour shifts would work for a particular jurisdiction. While they may not work for every agency, they certainly have sufficient benefits to warrant consideration. Imagine the possibility of a schedule that is attractive to both the officers **and** the agency.

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