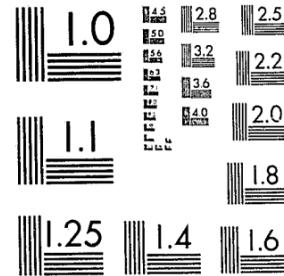


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2/13/85

# FBI LAW ENFORCEMENT BULLETIN

SEPTEMBER 1984

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## Raising the Stakes in Carnival Fraud

# FBI LAW ENFORCEMENT BULLETIN

SEPTEMBER 1984, VOLUME 53, NUMBER 9

NCJRS

001 1984

ACQUISITIONS

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Federal Bureau of Investigation  
United States Department of Justice  
Washington, D.C. 20535

William H. Webster, Director

The Attorney General has determined that the publication of this periodical is necessary in the transaction of the public business required by law of the Department of Justice. Use of funds for printing this periodical has been approved by the Director of the Office of Management and Budget through June 6, 1988.

Published by the Office of Congressional and Public Affairs,  
William M. Baker, Assistant Director

Editor—Thomas J. Deakin  
Assistant Editor—Kathryn E. Sulewski  
Art Director—Kevin J. Mulholland  
Writer/Editor—Karen McCarron  
Production Manager—Jeffrey L. Summers  
Reprints—Marlethia S. Black



ISSN 0014-5688

USPS 383-310

95543

Management

## Measuring the Productivity of Managers in a Municipal Police Department

“... police managers should be just as accountable for the efficient use of the resources allocated to them as their managerial counterparts in the private sector.”

By  
CAPT. WILLIAM J. HOOVER  
Police Department  
Ann Arbor, MI

How can you objectively measure the productivity of police department managers? In public employment there are no bottom line profit or loss figures as there are in private enterprise. Yet, police managers should be just as accountable for the efficient use of the resources allocated to them as their managerial counterparts in the private sector.

As inflation has eroded the buying power of the dollars available to local governments, the number of personnel has generally not increased. However, the workload has continued to rise. Public expectations with regard to police are higher than ever; yet, municipal police chiefs are constantly being told that they cannot hire more personnel, and in many cases, that they cannot fill existing vacancies.

In recent years, increased productivity by the police has been the subject of discussions at every level of the police organization. Responding to increasingly tight budget constraints, city administrators are being held accountable by elected officials for the “productivity” of the police department—the amount and quality of the service provided when compared to its cost. Police administrators, through their organization’s management structure, are seeking innovative ways to accomplish tasks and provide services more efficiently. Police department supervisors have recognized that the quantitative measurement of job performance has become an increasingly large part of

their supervisory responsibilities. At the negotiation table, the conversation often centers around a series of management-initiated contract changes that affect work schedules, assignments, and methods of performing the job, all of which are designed to increase productivity.

As the realities of doing more with less have set in, police administrators have looked at various methods of measuring what their departments are accomplishing. They are beginning to realize that they are probably not going to obtain more resources and may not be able to keep the ones they have, unless they can show city administrators and elected officials the value of what they are achieving with those existing resources.

Generally, the concept of quantifying and evaluating what we produce, especially on an individual or sectional basis, is new in municipal police work. For many years, we have reported general crime statistics to the FBI under the Uniform Crime Reporting system, and in more recent years, we have begun to measure other categories of police work, such as police response time. While these measures can be important, they generally describe activity for the organization as a whole and are difficult, if not impossible, to use as measures of productivity.



Captain Hoover



William J. Corbett  
Chief of Police

As we become more conscious of our need to be accountable, the evaluation of individual performance and the results achieved becomes increasingly important. Questions such as "What is it that we really produce here?" "What is it that we should be accomplishing?" "How much should I be accomplishing?" and "How do I know that my objectives are reasonable?" begin to arise. Experience has taught us that left to their own discretion, people will generally work at the things they like to do, not necessarily the things they need to do.

Managerial performance evaluation is generally not well-developed in police departments. The most common practice consists of using a subjective form on which personnel are rated annually or semiannually with respect to global categories, such as initiative and appearance.<sup>1</sup> Because of the subjectivity involved, police managers don't always view departmental evaluations as important tools. That attitude, combined with the inherent reluctance of some managers to tell subordinates face-to-face that their work is unsatisfactory, frequently results in an overall departmental evaluation that is excessively high.

In 1979, the Ann Arbor, Mich., Police Department was directed to develop a zero-based budget (ZBB) for fiscal year (FY) 1979-1980, as well as the standard line item budget formally prepared. "ZBB is a technique which complements and links the existing planning, budgeting, and review processes. It identifies alternative and effi-

cient methods of utilizing limited resources in the effective attainment of selected benefits. It is a flexible management approach which provides a credible rationale for re-allocating resources by focusing on the systematic review and justification of the funding and performance levels of current programs or activities."<sup>2</sup>

As part of the zero-based budget preparation, managers of each of the various budget entities of the organization were required to review their responsibilities and specify at least five quantifiable objectives that best describe the most important results their units were to accomplish in the coming budget year. The impact of that assignment was significant. Police managers have not routinely been required to think in terms of establishing realistic, reasonable, quantifiable objectives that they should work to accomplish over a fixed period of time. Generally, when police managers are asked to describe their objectives, they respond in broad terms, such as to protect life and property, apprehend criminals, and recover stolen property. While these are important goals, they are too general for measuring performance.

The requirements of the ZBB assignment caused managers at every level of the organization to think seriously about specific quantifiable objectives with which their work groups were to be concerned.

Initially, the department, in a presentation to city council, listed 25 "performance objectives" that it would accomplish in FY 1979-1980, if the resources requested were allocated. One of the values of the ZBB approach was that for each budget entity, the council had several alternative "cost/production" packages from which to choose. (See fig. 1.)

Figure 1

### Cost/Production Packages

QUANTIFIABLE OBJECTIVES	PERFORMANCE LEVELS FOR VARIOUS COST/PRODUCTION PACKAGES			
	#1	#2	#3	#4
1. Maintain units available for emergency response; at least	95.35%	96.40%	96.60%	96.86%
2. Number of traffic fatality and injury accidents; no more than	1,097	850	803	740
3. Apprehension of traffic code violators; at least	12,906	16,667	17,636	19,115
4. Recovery of stolen property; at least	\$458,840	\$592,567	\$627,000	\$680,000
5. Arrest of criminal offenders; at least	1,932	2,495	2,640	2,860
6. Number of citizen complaints; no more than	84	69	50	45

Although the Ann Arbor City Council decided not to implement the ZBB that had been prepared by the department, police administrators set up a system of measuring their actual 1979-1980 performance vis-a-vis their stated ZBB performance objectives. The results were generally good, although somewhat questionable in specific areas. In some cases, performance exceeded objectives by over 25 percent; yet in others, performance was over 25 percent short of expectation. Overall, there were several positive results to the efforts put into the ZBB project. Individual managers were forced to put a great deal of thought into identifying the results that the resources assigned to them were to accomplish. In addition, they had to quantify those objectives and be concerned throughout the budget year as to the ongoing level of results achieved.

In FY 1980-1981 and each budget year since, the "performance indicator system," as it is now known, has continued to evolve within the Ann Arbor Police Department. Today, it is a management tool to review the performance of budget entities and their managers throughout the organization, as well as the police department as a whole.

At budget preparation time, each budget entity manager must submit at least five performance indicators (objectives). Objectives are statements of reasonable, measurable, specific results to be achieved within a certain period of time.<sup>3</sup> They are statements of what is to be accomplished within the section, division, or department with the personnel, capital equipment, and dollars allocated. Objectives consist of both inputs, such as hours worked, and outputs, such as arrests made. The intent is to measure both efficiency and effectiveness.

In substance, these objectives must relate to the higher-level mission or goal statement of the agency. Mis-

sion or goal statements are continuing, nonspecific, and broad.<sup>4</sup> Upon completion, a section manager's performance indicators are channeled to the division commander who reviews and then modifies or adopts the proposed objectives in light of the resources to be used. Next, the division's performance indicators are forwarded to the chief of police, where a similar process occurs. Finally, the entire set of performance indicators is forwarded to the city administrator as a list of specific objectives to be accomplished in the coming budget year with the resources requested. When the budget is finalized, modifications in expected performance are made, if necessary, such as in cases where expectation was predicated upon acquiring resources that were not funded. In this instance, as in the preparation of the initial list of performance indicators, each level of management seeks a "meeting of the minds" with the "boss" as to what is "reasonable" to produce in light of the resources granted.

One of the primary features of the Ann Arbor Police Department's performance indicator system is the ability to score section, division, and department performance. The first step of that process is the determination of the "weight" to be attached to each of the performance indicators of each budget entity. For example, in FY 1982-1983, the patrol sections of the patrol division had 9 of the patrol division's total of 15 performance indicators, and the patrol division had 15 of the police department's total of 70

Figure 2

1982-1983 Ann Arbor Police Department Budget

PATROL DIVISION	
Patrol Sections .....	\$3,792,588
Special Services .....	326,332
INVESTIGATIVE DIVISION	
General and Major	
Crimes .....	717,530
Special Investigations ..	501,530
ADMINISTRATIVE SERVICES DIVISION	
Data Processing .....	230,040
Communications .....	615,610
Records and Property ..	217,860
Training, Budget, and Payroll .....	131,980
Civil Defense .....	65,530
Support Services .....	70,540
ADMINISTRATION .....	90,560
<b>TOTAL .....</b>	<b>\$6,760,100</b>

performance indicators. For the patrol sections, the nine performance indicators constituted their performance indicator system objectives for FY 1982-1983. For the patrol division, 15 objectives were considered when evaluating FY 1982-1983 performance, and for the entire police department, the FY 1982-1983 performance evaluation was to be based on the results of all 70 objectives. Obviously, each of the objectives for a budget entity does not have the same importance and thus does not carry the same "weight."

To determine the weight to be attached to each objective, the budget entity manager assigns weights to the objectives which, when totaled, equal 100 percent. Recognizing that the objectives are not equally important, the budget manager must identify that objective on which the most emphasis is to be placed in the coming year, the next most important, and so on. The importance of this step cannot be overemphasized. While these weights will be reviewed at each upward level of the organization, in typical manage-

ment by objective (MBO) fashion, their determination will have a significant bearing on the entire organization. In effect, the personnel of that budget entity are being told what their objec-

tives are for the coming year and the relative importance of those objectives to one another.

In our department, there are 10 sectional budget entities assigned to

Figure 3

1982-1983 Ann Arbor Police Department Budget By Performance Indicator Budget Entity

BUDGET ENTITY	DOLLARS ALLOCATED	PERCENTAGE OF DIVISION BUDGET	PERCENTAGE OF DEPARTMENT BUDGET
Patrol Sections .....	\$3,413,329	92.1%	50.5%
Special Services .....	293,699	7.9%	4.3%
<b>Subtotal Patrol Division .....</b>	<b>3,707,028</b>	<b>100.0%</b>	<b>54.8%</b>
General and Major Crimes .....	645,777	58.9%	9.5%
Special Investigations .....	451,377	41.1%	6.7%
<b>Subtotal Investigative Division ..</b>	<b>1,097,154</b>	<b>100.0%</b>	<b>16.2%</b>
*Data Processing .....	219,733	18.3%	3.3%
*Communications .....	566,746	47.3%	8.4%
*Records & Property .....	208,771	17.4%	3.1%
*Training, Budget, & Payroll .....	131,479	11.0%	1.9%
*Civil Defense .....	71,674	6.0%	1.1%
<b>Subtotal Administrative Services Division .....</b>	<b>1,198,403</b>	<b>100.0%</b>	<b>17.8%</b>
**Department as a Whole .....	757,515		11.2%
<b>TOTAL .....</b>	<b>\$6,760,100</b>		<b>100.0%</b>

\*The Support Services Section of the Administrative Services Division is the office of the division commander. No specific performance indicators are required for that office. Since the division commander's resources and efforts are spread throughout his division, each of the five remaining sections is equally allocated the budget dollars of the Support Services Section for performance indicator purposes.

\*\*The "department as a whole" dollars allocated amount comes from the administration portion of the total department budget and 10 percent of each budget entity's budget. This, in effect, creates a new budget entity for performance indicator purposes. The types of performance indicators used here are those that relate to the entire department, such as number of Part I Crimes, number of Part II Crimes, citizen complaints, etc.

**"In addition to informing managers of their performance to date, the periodic scoring of the performance indicators can serve to advise management of areas in which too much or too little emphasis may be being placed."**

one of three divisions. An additional budget entity entitled Administration (chief's office) is separate from the three divisions. In the budget preparation process, each of these 10 sectional budget entities and the Administration are allocated a certain amount for the budget year. (See fig. 2.) As previously indicated, managers must be accountable for the resources allocated them. Each budget entity manager is allocated a portion of the department's budget. The next step in the performance indicator scoring process is to determine the percentage of the division and department budget allocated to each performance indicator budget entity. Figure 3 shows the department's FY 1982-1983 budgeted dollars by performance indicator budget entity and the percentage of the total budget allocated to each performance indicator budget entity.

Notice that the total of the division weight in figure 4 (92.1) is equal to the patrol section's share of the patrol division budget in figure 3 (92.1 percent), and the total of the department weight (50.5 in fig. 4) is equal to the patrol section's share of the department budget (50.5 percent in fig. 3.) This follows the premise that as a manager, each of us is expected to "produce" with the resources allocated to him. With a specific share of the department or division budget, a manager is responsible for that share of the department's or division's productivity.

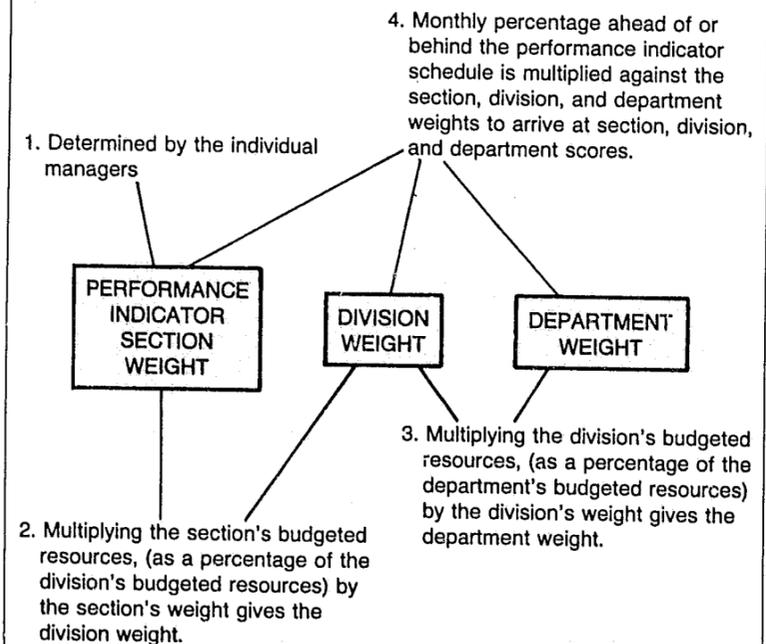
In our department, the performance indicator report is published by approximately the 15th day of each month and includes activity for the fiscal year as of the last day of the previous month.

As seen in figure 5, the patrol section's average emergency response time was 4.1 minutes between July 1, 1982, and June 30, 1983. When compared to the objective of 4.0 minutes established prior to the budget year, we can see that we are accomplishing 97.6 percent of our stated objective. To score that objective, the percentage of the objective achieved is multiplied by the weight established at the section, division, and department levels. In this case, 97.6 percent times a section weight of 20 equals 19.5 section points, 97.6 percent times a division weight of 18.4 equals 18.0 division points, and

97.6 percent times a department weight of 10.0 equals 9.76 department points.

With the budgets developed and the performance indicator weights established for each objective, scoring the performance of the section, division, and department by month or other time period becomes a process of multiplication and addition. The obvious value of scoring the performance indicator system, in spite of its subjectivity, is the ability to quantitatively compare the performance of managers and the resources assigned to them against their stated objectives.

Determination of a Performance Indicator Score



**"If an organization is to be accountable, it needs to determine methods of making sure reasonable results are being achieved with the resources allocated."**

Figure 4 shows the patrol section's FY 1982-1983 performance indicators, their section weights, and the developed division and department weights.

When all the patrol section objective scores are added together, the patrol sections are at 99.6 percent of the expected level of performance as of June 30, 1983. (See fig. 5.) To obtain the patrol division score, add the score of the other section of the patrol division (special services) to the 91.8 division points earned by the patrol sections. Finally, to obtain the department score, add the department scores of all performance indicator budget entities together.

In addition to informing managers of their performance to date, the periodic scoring of the performance indicators can serve to advise management of areas in which too much or too little emphasis may be being placed. If, for example, injury and fatality accidents start to increase above the expected levels, appropriate managers can react and decide upon a course of action, such as a decrease in time spent in another area, transfer of personnel, etc.

The performance indicator system has and will continue to evolve within the Ann Arbor Police Department. A significant aspect of the system is our recognition that we must become objective oriented. Too often, we accept what we do or have done for years without periodically assessing the value of what we are accomplishing. Often, we believe that it is too difficult or impossible to quantify

Figure 4

**1982-1983 Ann Arbor Police Department Patrol Section Performance Indicators**

PERFORMANCE INDICATOR	SECTION PERFORMANCE INDICATOR WEIGHT	DIVISION PERFORMANCE INDICATOR WEIGHT	DEPARTMENT PERFORMANCE INDICATOR WEIGHT
1. Average response time to all emergency calls of less than 4.0 minutes .....	20	18.4	10.0
2. Percentage of time units are available for emergency response at least 98% .....	15	13.8	7.6
3. Reduction of the number of accidents involving fatalities and injuries to no more than 750 .....	15	13.8	7.6
4. Providing road patrol street supervision of at least 4,500 hours ...	15	13.8	7.6
5. Reduction of officer hours of sick time usage to not more than 5,980 hours .....	10	9.2	5.1
6. Increase the percentage of crimes closed by arrest or exception by patrol to at least 35% of those handled.....	10	9.2	5.1
7. Achievement of at least a 40% enforcement level on all State reportable accidents.....	5	4.6	2.5
8. Increase in the number of stolen vehicles recovered to at least 100 .....	4	3.7	2.0
9. Reduction of patrol miles driven to no more than 568,739.....	6	5.6	3.0
<b>TOTAL WEIGHT .....</b>	<b>100</b>	<b>92.1</b>	<b>50.5</b>

the value of a particular task or tasks that we routinely perform. Our challenge is to be innovative—to constantly seek to improve our performance. To do that, we must find ways to measure and evaluate what we are doing. If the current system is not accomplishing all we thought it was, we may need to modify or even discard it,

but we will not know what action should be taken until we evaluate it. Police work will continue to have broad general goals, such as suppressing crime, but we must recognize our limitations and our strengths. If an organization is to be accountable, it needs to determine methods of making sure reasonable results are

being achieved with the resources allocated. To foster results on an individual or section level, one method is to predetermine reasonable levels of achievement and then push employ-

ees and managers toward those objectives. It will be easier to get where we are going if we have a road to follow and some way of recognizing when we have reached our destina-

tion.

In FY 1980-1981, the Ann Arbor Police Department scored 109.8 percent on its performance indicator system. In FY 1981-1982, the score was 115.4 percent. In FY 1982-1983, our score was 106.8 percent. Each year, our objectives are modified, normally in an upward direction, as we continue to challenge ourselves to do more and more with the resources we have. While the performance indicator system features many of the concepts of ZBB and MBO, its feature of timely quantitative feedback to all levels of the organization makes it a system which we believe is even more useful.

The Ann Arbor Police Department will be pleased to supply any interested agency with further details of the system, such as forms used, data collection methods, etc. Inquiries should be directed to the author at the Ann Arbor Police Department, 100 North Fifth Avenue, Ann Arbor, Mich. 48104.

**FBI**

**Footnotes**

- <sup>1</sup> Richard C. Larson, *Police Accountability* (Lexington, Mass.: D.C. Heath & Co., 1978), p. 16.
- <sup>2</sup> Peter C. Serant, *Zero-Base Budgeting in the Public Sector, A Pragmatic Approach* (Reading, Mass.: Addison-Wesley Publishing Co., 1978).
- <sup>3</sup> *Ibid.*, p. 37.
- <sup>4</sup> *Ibid.*

Figure 5

**Patrol Section Performance Indicator Score**

PERFORMANCE INDICATOR	SERVICE LEVEL THROUGH 6/30/83	PERCENTAGE OF OBJECTIVE	SECTION/DIVISION/DEPARTMENT SCORE
1. Average response time to all emergency calls of less than 4.0 minutes .....	4.1 Minutes	97.6%	19.5/18.0/9.76
2. Percentage of time units are available for emergency response at least 98%.....	97.87%	93.9%	14.1/13.0/7.14
3. Reduction of the number of accidents involving fatalities and injuries to no more than 750.....	777	96.5%	14.5/13.3/7.33
4. Providing road patrol street supervision of at least 4,500 hours.....	4,500 Hours	122.2%	18.3/16.9/9.29
5. Reduction of officer hours of sick time usage to not more than 5,980 hours .....	5,980.6 Hours	100.0%	10.1/9.2/5.10
6. Increase the percentage of crimes closed by arrest or exception by patrol to at least 35% of those handled ....	30.6%	87.5%	8.8/8.1/4.46
7. Achievement of at least a 40% enforcement level on all State reportable accidents..	33.9%	84.8%	4.2/3.9/2.12
8. Increase in the number of stolen vehicles recovered to at least 100.....	85	85%	3.4/3.1/1.70
9. Reduction of patrol miles driven to no more than 568,739 .....	503,387 Miles	113%	6.8/6.3/3.39
<b>TOTAL .....</b>			<b>99.6/91.8/50.29</b>

**END**