

PITTSBURGH BUREAU OF POLICE

PATROL STAFFING AND DEPLOYMENT REQUIREMENTS

PHASE 2 REPORT

Presented by

The International Association of Chiefs of Police



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May 2005

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PATROL STAFFING, DEPLOYMENT, AND SCHEDULING

Patrol is the preeminent function of every law enforcement agency. It is the direct link to the public, the primary provider of services, and the heart of an agency's crime prevention and control efforts. Patrol consumes the largest proportion of agency resources. For this reason alone, patrol resources must be managed with utmost skill – for public and officer safety purposes and with recognition for essential needs of parallel core functions of an agency.

I. STAFFING AND DEPLOYMENT OBJECTIVES

The objectives of patrol staffing, deployment, and scheduling decisions are to ensure that sufficient numbers of patrol officers and supervisors are available to:

- Respond to calls-for-service in a fashion that satisfies community expectations
- Achieve community and agency-set response time targets at acceptable levels
- Deploy officers as closely as possible with the temporal and geographic demand for service
- Conduct prevention, suppression, and other proactive public safety and quality of life tasks effectively
- Meet mandatory and essential administrative requirements satisfactorily.

Staffing, deployment, and scheduling plans must comply with officer safety requirements and should maximize cost-effective use of patrol resources.

II. STAFFING AND DEPLOYMENT FUNDAMENTALS

Universally applicable patrol manpower standards do not exist. Ratios, such as officers-per-thousand population, are totally inappropriate as bases for calculating patrol staffing and deployment requirements. The following factors must be considered when defining the patrol staffing requirements of any law enforcement agency:

- Crime conditions
- Citizen demand for crime control and non-crime services
- Policing philosophy

- Number, type, and duration of calls-for-service
- Population size and density
- Composition of population
- Topographical configuration of the service area
- Cultural conditions
- Climate, especially seasonality
- Amount of time that each officer can commit to duty (availability)
- Municipal resources
- Trends in the foregoing areas.

Patrol methods, experience, and productivity of officers and supervisors must be considered.

III. THE INFORMATION PLATFORM

Patrol staffing requirements analysis and calculation is a data-dependent endeavor. For the PBP effort, a variety of data sources and statistical techniques were employed.

SECTION 1: DATA COLLECTION - PRIMARY

To define the patrol staffing requirements of the PBP, data were collected on:

- Workload.** The amount, type, and distribution of labor invested and engaged by field patrol officers.
- Availability.** The number of hours that field patrol officers work each year.
- Patrol Configuration.** Number, deployment, and scheduling of first responders, field supervisors, and special mission forces.

Workload data were obtained from the computer-aided dispatch (CAD) logs of the Emergency Communications Center. The data documented recorded activity for a two-month period, July and August 2004, by time, day of week, zone, unit responding, nature of activity and time spent on each activity.

Availability calculations require data regarding loss factors (time not committed to field patrol) such as vacation, sick leave, training, days off, deferred holidays, and personal days. Information on leave utilization for a number of pay periods for patrol were gathered and analyzed. Based on these data, an availability ratio was calculated.

Patrol configuration information was gathered through interviews, from department documentation, and by field observations by IACP professional staff. Information on the average number and type of units fielded during a period that coincided with the gathering of workload statistics, was hand-coded. These activities produced information on the number and mix of primary response units; single officer cars; two officer cars; foot and bike beats; canine units; patrol officers not directly involved in primary response – investigators, community problem solving officers, and specialized traffic officers. Information was gathered separately on officers whose assignments reduce time available to respond to calls-for-service (SERT Officers: Special Emergency Response Team).

SECTION 2: DATA FORMATTING

CAD data was transferred to an Excel format and analyzed using Excel and SPSS (Statistical Package for the Social Sciences). To set up analysis, workload was divided into five categories:

- ❑ **Criminal**. Labor associated with crimes. Criminal labor generally originates in the community as a call-for-service. Officer-initiated, crime-related activities are included in this category.
- ❑ **Non-Criminal**. Activity reported from the community which is not criminal in nature. First aid and lost and found calls are examples.
- ❑ **Administrative**. Agency or personal business completed during the duty period. Roll call, meal periods, personal breaks, vehicle maintenance and meeting with supervisors are examples. Court time is included in this category.
- ❑ **Traffic**. Labor associated with traffic matters. Self-initiated traffic activities, such as citation work, and traffic-related calls-for-service, such as accidents or traffic complaints from the community, are included in this category.
- ❑ **Uncommitted Patrol Time**. The time remaining in the eight-hour workday not committed to any other type of labor.

Workload information was extrapolated to yearly data, using standardized mathematical procedures. The data have been corrected for seasonal difference. Dispatch coding errors were identified and effects estimated. To test accuracy and supplement CAD data, a sample of daily activity reports recorded by patrol personnel were analyzed. Daily activity reports provide information on activities, by officer, for

each shift, information on daily activity, including nature of activity, time invested in activity, location, time of day, and day of week. Workload data has also been corrected for seasonal difference.

SECTION 3: MEASUREMENT FACTORS

Measurement factors help to describe and analyze the work setting and determine patrol staffing needs and deployment requirements. Measurement factors used for the Pittsburgh analysis are:

- Operational Labor
- Administrative Labor
- Uncommitted Patrol Time.

Operational labor is the aggregate amount of time consumed to answer calls-for-service generated by the public and to complete work that officers self-initiate. Operational labor includes the criminal, non-criminal and traffic workload categories defined earlier.

Administrative labor is the total amount of time consumed for indirect, non-operational activities such as training, administration, and court. Vehicle care, roll calls, report writing and filing, and special details are included.

Uncommitted patrol time is the total amount of time not consumed as operational or administrative labor. It is necessary for proactive law enforcement activity. It requires special attention when determining patrol staffing requirements. Uncommitted patrol time allows:

- Timely response to calls-for-service
- Time for patrol officers to initiate contact with suspicious persons and events
- Time for officers to initiate contact for public service purposes
- Multiple officer response capability to simultaneous priority settings
- The ability to have multiple officer response capability to single-call priority settings.

Uncommitted time is critical for community policing, problem solving, visibility patrols, and officer-initiated anti-crime activity.

Considering Pittsburgh's policing environment and selected factors set forth earlier, we recommend that as a proportion of the total labor in an officer's workday, Operational Labor should not continually exceed 30% on the day and evening shift. The PBP should strive to maintain 45% - 50% uncommitted patrol time on all work periods.

IV. CURRENT ALLOCATION AND DEPLOYMENT

The profile that follows reflects conditions during the last two weeks of January, February and March 2005. Retirements, hiring, and reassignments alter the accuracy of the profile. None are likely to materially influence analysis, findings, or recommendations.

The Operations Branch is staffed by a sworn contingent of one assistant chief, five commanders, 17 lieutenants, 45 sergeants, 18 detectives, 60 master police officers, 398 patrol officers, and 12 canine officers, a total sworn complement of 556.

Zones. Patrol operations are structured by five geographical zones. Zones operate as mini patrol divisions. Each is subdivided geographically into sectors. Patrol units are assigned to sectors, usually multiple sectors. Each zone has a headquarters building with a line-up area, administrative office, and a desk area, for public access

Zone Scheduling. Utilizing five days on, two days off, eight-hour shifts, three primary shifts are fielded each day. Each is divided into early and late components to provide overlap. Day and afternoon shifts also field officers on a split shift.

☐	Day shift:	7:00 a.m. - 3:00 p.m.	Fixed; Early Utility
		8:00 a.m. - 4:00 p.m.	Fixed; Late Utility
		12:00 p.m. - 8:00 p.m.	Split
☐	Afternoon shift:	3:00 p.m. - 11:00 p.m.	Fixed; Early Utility
		4:00 p.m. - 12:00 a.m.	Fixed; Late Utility
		8:00 p.m. - 4:00 a.m.	Split
☐	Night shift:	11:00 p.m. - 7:00 a.m.	Fixed; Early Utility
		12:00 a.m. - 8:00 a.m.	Fixed; Late Utility

The split shift (named because it shares hours with two shifts) is used to provide additional officers to the higher activity periods of afternoons, evenings and early morning hours. Officers are assigned to specific posts (fixed) or to posts based on daily need (utility).

Primary and Secondary Responders. We have identified 328 sworn first/primary responders, those who respond to calls-for-service and conduct preventive/general patrol. We have identified 118 who serve in non-primary (secondary response) or other zone-based assignments and 42 officers (SERT/Accident) who share primary response duties with periodic special assignments:

- ❑ **Zone Detectives.** Four to six officers in each zone are assigned to plainclothes duties (investigations). Currently, 20 are assigned
- ❑ **Desk Officers.** One officer per shift, per zone is assigned to desk duties (1.78 officers to cover a shift, a total of 5.34 per 24-hour period per zone)
- ❑ **River Patrol.** The equivalent of five officers is assigned to river patrol.
- ❑ **Specialized Traffic.** 27 officers and a sergeant in Zone 2 are assigned to traffic duties. The total includes two officers assigned to truck safety, one officer to the tow pound, three boat officers, 19 motorcycle officers, and two officers to collision investigations
- ❑ **Community Problem Solving.** Four officers in each zone (six in Zone 3), currently 19 officers specialize in community policing activity.
- ❑ **Bicycle Patrols.** Twenty-five (25) officers are assigned to special bike patrols in downtown, parks and commercial areas. Current complement is 20 officers.
- ❑ **SERT.** Twelve (12) full-time officers and 19 part-time.
- ❑ **Accident/Intoxilyzer.** Eleven (11) officers.

Distribution of primary and secondary responders, by zone and shift, is displayed in Table 1.

Table 1		
DISTRIBUTION OF PATROL RESOURCES		
Rank/Assignment	Zone 1	
	Current Staffing	
Commander	1	
Lieutenant	5	
Sergeant	8	
Zone Detective	4	
Master Police Officer	12	
Officer	64	
Canine Officer	3	
TOTAL	97	
Day Shift	Afternoon Shift	Night Shift
1 Lieutenant	1 Lieutenant	1 Lieutenant
3 Sergeants	2 Sergeants and 1 Acting	3 Sergeants
29 Officers	31 Officers	23 Officers
1 Desk*	1 Desk*	1 Desk*
2 Community Problem Solving	2 Community Problem Solving	
1 K-9*	1 K-9*	1 K-9*
4 SERT*	6 SERT*	5 SERT*
3 Bike*		4 Plainclothes*
Split 2 (3 bike; 2 CPS)*	Split 9*	
* Included in the officers assigned in row 3.		

Table 1 (continued)		
DISTRIBUTION OF PATROL RESOURCES		
Rank/Assignment	Zone 2	
	Current Staffing	
Commander	1	
Lieutenant	3	
Sergeant	9	
Zone Detective	3	
Master Police Officer	10	
Officer	76	
Canine Officer	<u>3</u>	
	TOTAL	
	105	
Zone 2 Traffic Contingent		
Sergeant	1	
Master Police Officer	4	
Truck Officers	2	
MPO Tow Pound	1	
Officers	<u>21</u>	
	TOTAL	
	29	
Day Shift	Afternoon Shift	Night Shift
1 Lieutenant	1 Lieutenant	1 Lieutenant
2 Sergeants and 1 Acting	3 Sergeants	3 Sergeants
30 Officers	33 Officers	20 Officers
1 Desk*	1 Desk*	1 Desk*
2 Community Problem Solving	2 Community Problem Solving	
1 K-9*	2 K-9*	
4 SERT*	4 SERT*	1 SERT*
6 Bike*	3 Bike*	4 Plainclothes*
Split 3 (3 bike; 2 CPS)*	Split 9* (Bike 3)* (K-9 1)*	
* Included in the officers assigned in row 3.		

Table 1 (continued)		
DISTRIBUTION OF PATROL RESOURCES		
Zone 3		
Rank/Assignment		Current Staffing
Commander		1
Lieutenant		3
Sergeant		10
Zone Detective		5
Officer		109
Canine Officer		<u>2</u>
TOTAL		130
Day Shift	Afternoon Shift	Night Shift
1 Lieutenant	1 Lieutenant	1 Lieutenant
2 Sergeants and 1 Acting	4 Sergeants	3 Sergeants
30 Officers	50 Officers	31 Officers
1 Desk*	1 Desk*	1 Desk*
2 Community Problem Solving	2 Community Problem Solving	
		1 K-9*
1 Intox/ACC*	3 SERT*	1 Intox/ACC*
Split (2 CPS)*	Split 18* (2 CPS)*	
* Included in the officers assigned in row 3.		

Table 1 (continued)		
DISTRIBUTION OF PATROL RESOURCES		
Zone 4		
Rank/Assignment		Current Staffing
Commander		1
Lieutenant		3
Sergeant		9
Zone Detective		2
Master Police Officer		18
Officer		51
Canine Officer		<u>1</u>
	TOTAL	85
Day Shift	Afternoon Shift	Night Shift
1 Lieutenant	1 Lieutenant	1 Lieutenant
3 Sergeants	3 Sergeants	3 Sergeants
23 Officers	31 Officers	22 Officers
1 Desk*	1 Desk*	1 Desk*
3 Community Problem Solving*	2 Community Problem Solving*	1 SERT
3 Bike*	2 Bike*	1 K-9*
4 SERT*	4 Intox/ ACC*	3 Plainclothes
Split 2* (3 CPS)* (3 Bike))*	Split 9*	
* Included in the officers assigned in row 3.		

Table 1 (continued)		
DISTRIBUTION OF PATROL RESOURCES		
Zone 5		
Rank/Assignment		Current Staffing
Commander		1
Lieutenant		3
Sergeant		9
Zone Detective		4
Master Police Officer		15
Officer		72
Canine Officer		<u>4</u>
	TOTAL	108
Day Shift	Afternoon Shift	Night Shift
1 Lieutenant	1 Lieutenant	1 Lieutenant
1 Sergeants (2 Acting)	3 Sergeants	2 Sergeants (1 Acting)
31 Officers	40 Officers	25 Officers
1 Desk*	1 Desk*	1 Desk*
1 Community Problem Solving*	2 Community Problem Solving*	1 SERT
4 Bike*	2 SERT*	1 K-9*
1 SERT*	2 Intox/ ACC*	4 Plainclothes
1 K-9*	2 K-9*	
Split 9* (1 CPS)* (2 Bike))*	Split 11* (1 K-9)* (2 CPS)*	
* Included in the officers assigned in row 3.		

V. PATROL CONFIGURATION

On an average day, the Operations Branch field 185 patrol units, with 222 officers, city-wide, over 24 hours. It fields different types of response units to address patrol obligations, primary and secondary. The majority of primary response, 57%, involves single officers (one person cars). Approximately 20% are two person vehicles, standard police vehicles and patrol wagons, which serve as primary units and are utilized to transport prisoners to jail.

Bike, motorcycle, canine, and foot beats are fielded in limited numbers. Canine units serve as primary response units when not involved in search or control activities. Table 2 profiles the mix of units and associated deployment of officers.

Table 2				
AVERAGE DAILY DEPLOYMENT - CITYWIDE (JULY 2004)				
Type of Unit	Units Deployed	Officers/Unit	Officers Deployed	Percent
<input type="checkbox"/> 1 Person Vehicles	105.00	1	105.00	56.80%
<input type="checkbox"/> 2 Person Vehicles	36.79	2	73.58	19.80%
<input type="checkbox"/> Foot Patrol Beats	7.86	1	7.86	4.25%
<input type="checkbox"/> Bicycles	8.50	1	8.50	4.60%
<input type="checkbox"/> K-9	6.50	1	6.50	3.52%
<input type="checkbox"/> Motorcycles	4.79	1	4.79	2.59%
<input type="checkbox"/> CPS	11.21	1	11.21	6.06%
<input type="checkbox"/> 99 Car (Special Detail)	<u>4.21</u>	<u>2</u>	<u>8.42</u>	<u>2.28%</u>
TOTAL	184.86		225.86	100.00%

Removing the secondary units from the total units fielded, on average during the period surveyed, 145 primary response units were fielded.

Table 3 displays the average number of units and officers fielded each day, 24-hours, by zone.

Table 3					
AVERAGE DAILY DEPLOYMENT - ZONES					
City Wide Averages	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5
<input type="checkbox"/> 1 Person Vehicles	15.50	15.86	32.93	21.07	19.64
<input type="checkbox"/> 2 Person Vehicles ⁽¹⁾	7.71	5.79	6.93	5.64	10.71
<input type="checkbox"/> Foot Patrol Beats	0.57	2.00	4.86	0.00	0.43
<input type="checkbox"/> Bicycles	1.71	3.57	0.50	1.29	1.43
<input type="checkbox"/> K-9	1.00	1.86	0.93	1.07	1.64
<input type="checkbox"/> Motorcycles	0.00	4.79	0.00	0.00	0.00
<input type="checkbox"/> CPS	2.21	3.21	2.93	2.21	0.64
<input type="checkbox"/> 99 Car (Special Detail)	<u>0.93</u>	<u>0.93</u>	<u>1.21</u>	<u>0.36</u>	<u>0.79</u>
Average Units Fielded Per Day	29.64	38.00	50.29	31.64	35.29
(1) Includes patrol wagons					

Average daily unit deployment ranges from 29.64 in Zone 1 to 50.29 in Zone 3. All other zones are in the 30 range. Use of two-person vehicles shows notable variation, as a proportion of total units fielded. Use is proportionally heavy in Zones 1 and 5.

VI. WORKLOAD - TYPE AND AMOUNT

The activities of all patrol officers are tracked and timed by the city's (now county) Emergency Communications Unit and recorded in the Computer Aided Dispatch System (CAD). Times are automatically recorded when an officer is dispatched or reports an activity and when an activity is completed. The number of activities and amounts of time spent by officers was calculated. Tables 4 and 5 reflect the type and amount of workload conducted by primary and secondary responders.

Modifications had to be made to the database. Calls and activities addressed by the Mount Olive Police Department and the Pittsburgh Housing Police were removed, as were some activities of the Sheriff’s Office and the State Police. Calls-for-service handled by PBP motorcycle units and other specialized traffic units were analyzed separately. Coding errors and missing data were repaired when possible. Common dispatcher/report time entry errors were addressed. For each activity mean, median, kurtosis and skewing were calculated. Two errors – zero time entries and failure to enter a completion time, were addressed by using mean time.

SECTION 1: OPERATIONAL LABOR

Operational labor consists of police response to crime and non-crime calls and police-initiated crime and service activities, including traffic enforcement, accident investigation, and traffic direction/control duties. Table 4 profiles operational labor, by type, for the two months sample period, July and August 2004.

<p style="text-align: center;">Table 4</p> <p style="text-align: center;">CALL ACTIVITIES BY TYPE</p> <p style="text-align: center;">(July/August 2004)</p>		
Class of Activity	Incidents - Recorded	Percent of Total
<input type="checkbox"/> Class and emergency related work	64,478	78.2%
<input type="checkbox"/> Service work	3,381	4.2%
<input type="checkbox"/> Traffic control, enforcement, and accident Investigations	<u>14,542</u>	<u>17.6%</u>
TOTAL	82,401	100.0%

The 82,000 plus incidents recorded consumed a total of 48,234.369 hours. This figure accounts for work conducted by traffic, investigations, and other non-primary response units. Primary response units engaged in 31,468 hours of operational labor. During the period surveyed, an average of 185 units a day were fielded. Of these 185 units, approximately 145 were primary response units. For primary response units, 44% of their time was involved with operational labor, significantly higher than the IACP recommended level of 30%.

SECTION 2: ADMINISTRATIVE ACTIVITIES

Administrative labor consists of activities undertaken to support the patrol function. Gassing of vehicles, court, vehicle maintenance, mail delivery, and special details are examples. All take time out of the work day. The IACP model sets limits on operational labor to provide time for the administrative tasks. Table 5 itemizes the types of administrative labor that characterizes PBP patrol operations. Data are for the July/August 2004 sample period.

<p style="text-align: center;">Table 5 ADMINISTRATIVE ACTIVITY BY TYPE (July/August 2004)</p>		
Activity	Number of Incidents	Hours
<input type="checkbox"/> E60	2	1
<input type="checkbox"/> P30	1,725	973
<input type="checkbox"/> Court	223	529
<input type="checkbox"/> Detail	2,403	2,426
<input type="checkbox"/> Fuel	2,143	943
<input type="checkbox"/> Garage	123	132
<input type="checkbox"/> Mail	152	479
<input type="checkbox"/> Maint.	58	73
<input type="checkbox"/> OOS	6,102	4,007
<input type="checkbox"/> Radio	9	10
TOTAL	12,940	9,588

Primary response units consumed 9,588 hours for the activities itemized above and an additional 3,270 hours for lineup, a total of 12,858 hours during the period surveyed. Administrative time consumed approximately 18% of a primary responder's day. When combined with operational labor total obligated time less than 50% should not continually exceed 50% of an officer's day. (The amount of time that officers are engaged in administrative matters and operational labor is called obligated time.) Total

obligated time in the PBP patrol setting consumes 62% of the average day for a primary responder (44% operational labor and 18% administrative labor).

VII. WORKLOAD - GEOGRAPHICAL AND TEMPORAL DISPERSION

Officer deployment should mirror, as closely as possible, the geographical and temporal distribution of workload. Patrol Activities were calculated by zone, by day of week, and by time of day. Table 6 displays the results.

Table 6						
WORKLOAD DISPERSION OF PATROL ACTIVITIES (July/August 2004)						
Hour	Zones					Shift Totals
	1	2	3	4	5	
12 - 1 am	1,034	1,161	1,713	666	1,279	5,853
1 - 2 am	823	1,193	1,575	559	1,193	5,343
2 - 3 am	694	1,135	1,548	699	1,065	5,141
3 - 4 am	472	516	1,021	429	715	3,153
4 - 5 am	358	414	647	257	591	2,267
5 - 6 am	285	270	422	242	427	1,646
6 - 7 am	196	255	400	222	337	1,410
7 - 8 am	<u>338</u>	<u>401</u>	<u>571</u>	<u>370</u>	<u>468</u>	<u>2,148</u>
Shift Total	4,200	5,345	7,897	3,444	6,075	26,961
8 - 9 am	501	590	644	519	642	2,896
9 - 10 am	557	521	789	606	634	3,107
10 - 11 am	606	579	870	606	699	3,360
11 am-12 pm	606	572	1,022	795	739	3,734
12 - 1 pm	746	730	1,099	826	814	4,215
1 - 2 pm	769	660	1,203	844	823	4,299
2 - 3 pm	714	627	1,025	762	746	3,874
3 - 4 pm	<u>979</u>	<u>935</u>	<u>1,454</u>	<u>761</u>	<u>880</u>	<u>5,009</u>
Shift Total	5,478	5,214	8,106	5,719	5,977	30,494
4 - 5 pm	965	939	1,658	930	1,082	5,574
5 - 6 pm	1,044	917	1,688	933	998	5,580
6 - 7 pm	867	867	1,877	1,009	1,029	5,649
7 - 8 pm	898	899	1,812	929	925	5,463
8 - 9 pm	1,044	1,076	2,013	896	1,161	6,190
9 - 10 pm	1,143	1,171	2,004	918	1,224	6,460
10 - 11 pm	1,032	1,025	1,812	816	1,084	5,769
11 pm-12 am	<u>1,111</u>	<u>1,025</u>	<u>1,654</u>	<u>802</u>	<u>1,132</u>	<u>5,724</u>
Shift Total	8,104	7,919	14,518	7,233	8,635	46,409
Agency Total	17,781	18,478	30,520	16,394	20,688	103,864
% of Total	17.12%	17.79%	29.39%	15.78%	19.92%	

Globally viewed, operational workload distributes within a range of 21% in four zones (1,2,4,5) from a low of 16,394 incidents in Zone 4 to a higher of 20,688 in Zone 5. Zone 3, a consolidated zone, and the largest, geographically, stands alone, well beyond the 21% margin. Table 7 compares distribution of/demand for operational labor and patrol resource allocation, by zone. The matches range within modest limits.

Evening shift (4:00p.m. to 12:00 a.m.) proved the most active shift accounting for 44.7% of activities (calls and self-initiated). Day shift (8:00 a.m. to 4:00 p.m.) accounted for 29.4%, and night shift (4:00 p.m. to 12:00 a.m.) experienced 26% of the total activities. Activity levels varied by zone by shift with Zone 1 and Zone 3 experiencing a higher proportion of calls on evenings, while Zones 2, 4 and 5 experienced almost as many calls on days as evenings.

Table 7		
COMPARATIVE LEVELS OF OPERAITONAL LABOR AND OFFICER ASSIGNMENT		
	Percent of Operational Labor	Percent of Officers
<input type="checkbox"/> Zone 1	17%	18%
<input type="checkbox"/> Zone 2	18%	20%
<input type="checkbox"/> Zone 3	29%	25%
<input type="checkbox"/> Zone 4	16%	16%
<input type="checkbox"/> Zone 5	20%	21%

VIII. AVAILABILITY

The number of hours an officer actually works (availability) is an important factor in defining staffing requirements. Availability is calculated by deducting absences, or loss factors, from a base of 365 potential work days. PBP loss factors are documented in Table 8 and applied in Table 9.

In 2004 Pittsburgh patrol officers worked an average of 205.21 days, straight time (does not include overtime). Data was provided by the department. Leave averages were deducted from the base.

The availability calculation enables us to compute the PBP patrol staffing Replacement Factor, the number of additional officers required to staff an eight-hour post, 365 days a year. For the PBP, the replacement factor is .78, or a multiplier of 1.78.

Table 8			
LOSS FACTORS			
Type	Days	Type	Days
<input type="checkbox"/> Vacation	16.0513	<input type="checkbox"/> Approved Leave	0.3967
<input type="checkbox"/> Deferred Holiday	8.6176	<input type="checkbox"/> Military	0.3902
<input type="checkbox"/> Sick	8.1305	<input type="checkbox"/> Bereavement	0.1925
<input type="checkbox"/> Holiday	6.8251	<input type="checkbox"/> Sick, Unpaid	0.1795
<input type="checkbox"/> Training Day	4.7089	<input type="checkbox"/> Vacation - WC	0.1066
<input type="checkbox"/> Workers Compensation	3.0484	<input type="checkbox"/> Sick - WC	0.0494
<input type="checkbox"/> Personal Day	2.9236	<input type="checkbox"/> AWOL	0.0260
<input type="checkbox"/> Short Term Disability	1.6204	<input type="checkbox"/> Jury Duty	0.0234
<input type="checkbox"/> Absent, No Time Left	1.5268	<input type="checkbox"/> Comp Time Used	0.0182
<input type="checkbox"/> Approved Unpaid Absence	0.4812	<input type="checkbox"/> Personal Day - WC	0.0104
<input type="checkbox"/> On-Duty Court	0.4552	<input type="checkbox"/> Union Rep Day	0.0026

Table 9	
YEARLY AVAILABILITY 5-2⁽⁸⁾ PLAN	
Base = 365 days =	365
<input type="checkbox"/> Days off 2 days by 52 weeks = 104.2857	260 days
<input type="checkbox"/> Vacation = 16.0513	244.9487
<input type="checkbox"/> Deferred Holiday = 8.6176	236.3311
<input type="checkbox"/> Sick Leave = 8.1305	228.2006
<input type="checkbox"/> Holiday = 6.8251	221.3755
<input type="checkbox"/> Training Day = 4.7089	216.666
<input type="checkbox"/> Workers Compensation = 3.0484	213.6182
<input type="checkbox"/> Personal Days = 2.9236	210.6946
<input type="checkbox"/> Short Term Disability = 1.6204	209.0742
<input type="checkbox"/> Absent No Time = 1.5286	207.5456
<input type="checkbox"/> Other Time Off = 2.3356	205.2100
Final Availability =	205.21 days
Replacement Factor =	1.78

IX. RESPONSE TIMES

A response time profile is presented in Table 10. The “Minutes” represent the time that elapses between (1) call intake by a dispatcher and dispatch of a call to a field unit and (2) the drive time to arrival at the scene/service point.

The PBP/EOC employs a nine-tier system, 1 being the highest priority (requiring the most immediate response) and 9 being lowest priority. Mean (average response times for the priorities) are:

<u>Priority</u>	<u>Average Response Time -- Total</u>	<u>Average Response Time -- Total Drive Time</u>
1	11.71	5.23
2	14.46	6.75
3	18.77	7.97
4	20.91	7.72
5	26.46	9.79
6	20.69	7.79
7	21.88	7.63
8	37.78	9.01
9	21.74	7.08

Priority 1, 2, and 3 calls are ranging from 12-19 minutes. Priorities 4-7 are all in the low 20-minute ranges as are Priority 9 calls.

Table 10			
RESPONSE TIMES - MINUTES			
Call Code	Priority	Call Description	Minutes
HAZMTB	E	Hazardous Materials	No Data
HAXMTC	E	Hazardous Materials	No Data
HELP P	E	Help Police	7.234795
ASSAU0	0	Assault No Injuries	10.66018
PRI0	0	Unconscious Subject	14.87316
PROBU0	0	Problem Unknown	8.577471
PSCY0	0	Psych Call	12.11435
ACC1	1	Accident	No Data
ALAHOL	1	Alarm Holdup	7.615102
ASSAU1	1	Assault Critical	12.88405
BURBUS	1	Burglary Business	16.0402
CAVEIN	1	Cave In	27.86681
DOMINJ	1	Domestic with Injury	15.66497
GUN	1	Gun	10.16747
HAZMAT	1	Hazardous Materials	No Data
HOS	1	Hostage	6.764187
JUMPER	1	Jumper	12.9762
LOKIDP	1	Person Locked in Vehicle	11.06854
PSYC1	1	Psych Call	12.9665
PUR	1	Pursuit	8.077411
PURFT	1	Foot Pursuit	4.546294
RA	1	Request Assistance	13.57897
RAPATT	1	Rape Attempt	7.99907
ROB	1	Robbery	14.51272
ROBBAN	1	Bank Robbery	12.23464
ROBBUS	1	Robbery of Business	12.78664
ROBPER	1	Robbery of Person	12.00131
ROBRES	1	Robbery of Residence	5.197222
SHOTST0	1	Shot/Stab Call	10.68026
TP	1	Traffic Problem	No Data
WEAPON	1	Weapon Call	10.2892
ABDUCT	2	Abduction	19.84165
ALAPAN	2	Alarm Panic	12.24703
ASSAU2	2	Assault Serious	13.87588
BOMB	2	Bomb Call	16.75647
BURATT	2	Burglary Attempt	18.06038
BURRESS	2	Burglary Residence	14.07455
CHILOS	2	Child Lost	10.60833
CHIMIS	2	Child Missing	31.23531
DOMVIO	2	Violent Domestic	10.22635
EXPLO	2	Explosion	19.30091

Call Code	Priority	Call Description	Minutes
PROBU2	2	Problem Unknown	9.277001
PROWL	2	Prowler	10.96551
PSYC2	2	Psych Call	15.51772
PURSE	2	Purse Snatch	10.97716
SHOST2	2	Shots	13.59762
SHOTS	2	Shots	7.76729
UNK	2	Unknown	11.43584
AID	3	Aid	21.66822
ALAAUD	3	Alarm Audible	11.57164
ALABUR	3	Alarm Burglar	12.76701
ALAINI	3	Alarm Internal	12.4373
ALAREC	3	Alarm Recorded	13.70586
ALASIL	3	Alarm Silent	9.136106
ASSAU3	3	Assault Minor	19.24054
AUTTHE	3	Auto Theft	30.49497
BOATEM	3	Boat Emergency	7.554926
BOLO	3	Be On the Lookout	17.23597
BUR	3	Burglary	32.81299
CARJ	3	Carjack	11.81937
CHEHAZ	3	Check Road Hazard	No Data
CHI	3	Child Event	21.08269
CHIABA	3	Abandoned Child	21.51976
CHIFOU	3	Child Found	36.33025
DISPER	3	Disorderly Person	13.15012
DOM	3	Domestic	10.84665
FIRVEP	3	Fire - Vehicle	10.56945
GRAF1	3	Graffiti Satanic or Similar	8.671605
GRAF2	3	Graffiti Other	29.88359
INTOXD	3	Intoxicated Driver	No Data
LOCKIN	3	Unknown	12.19166
LOCKP	3	Person Locked In	19.22222
MOL	3	Molester	No Data
PFA	3	Protection from Abuse	15.89767
SCRIPT	3	Fraudulent Prescription	48.42222
SHOP	3	Shoplifter	15.11446
SHOTST3	3	Shots	27.9766
SUSACT	3	Suspicious Activity	15.43762
AIDO	4	Aid Other	21.06999
AIDP	4	Aid Police	15.90142
ARR	4	Arrest	12.708333
ARRWAR	4	Arrest Warrant	15.74628

Call Code	Priority	Call Description	Minutes
ASS	4	Assault	25.00384
CUSTRO	4	Trouble with Customer	11.88201
DOA	4	Dead on Arrival	38.62857
DRUGS	4	Drug Transaction	17.46142
EXPOSE	4	Person Exposing Themselves	14.77985
FIG	4	Fight	7.275369
RDHAZ	4	Road Hazard	No Data
THEFTV	4	Theft from Vehicle	37.52245
UNKTRO	4	Unknown Trouble	11.18943
WIRES1	4	Wires Down Sparking	39.33703
WIRES2	4	Wires Down Unknown	24.20472
ALAVEH	5	Alarm Vehicle	38.82343
CHECK	5	Bad Check	22.33148
CHEWEL	5	Check on Well	22.76458
CRIMIS	5	Criminal Mischief	33.79668
CURFEW	5	Curfew Violation	25.61759
E10	5	Unknown	23.31952
FLOOD	5	Flood	22.19629
FORG	5	Forgery	No Data
GAN	5	Gang Complaint	14.89393
HARPER	5	Harassment in Person	30.52313
INJP2P	5	Injured Person	No Data
PER	5	Person Call	14.32836
PERMIS	5	Missing Person	41.20454
PEROUT	5	Person Needing Removal	13.99225
TERTHR	5	Terrorist Threat	29.81004
THEFT	5	Theft	36.85939
911ABU	6	911 Abuse Call	14.84895
CHIABU	6	Child Abuse Report	22.8107
DIS	6	Disturbance	17.88042
DISTEN	6	Tenant/Landlord Dispute	19.6098
FC	6	Firecrackers	23.81348
FRAUD	6	Fraud	40.47395
PARTY	6	Party	20.55791
SUS	6	Suspect	17.25316
SUSPER	6	Suspicious Person	14.36953
SUSVEH	6	Suspicious Vehicle	15.31227
FIRENP	7	Fire - Entrapment	No Data
FIRILP	7	Fire - Illegal Burning	No Data
FIRMIP	7	Fire - Miscellaneous	No Data
FIRSTHP	7	Fire - Structure	15.02607
HARPHO	7	Harassment Via Phone	41.07975
INTOX	7	Intoxicated Person	14.29093

Call Code	Priority	Call Description	Minutes
MAYOROP	7	Mayor's Program (Look Into Complaints)	19.70463
NOPAY	7	Person Not Paying	19.93229
OPEN	7	Open Door	8.720309
PERFOU	7	Found Person	42.80985
TIP	7	Tip	15.194551
TRACON	7	Traffic Condition	No Data
VICE	7	Vice Activity	20.18729
ANI	8	Animal Complaint	17.70379
AUT	8	Auto Stolen	46.32122
AUTREC	8	Auto Recovered	42.41722
EVENTP	8	Public Event	33.75878
PARK	8	Parking Problem	No Data
PLATE	8	Running License Plate	43.85122
PPW	8	Police Park and Walk	60.45829
PRO	8	Found Property	38.20472
SOLICT	8	Solicitation	15.7507
SPEAUT	8	Speeding Auto	No Data
TOW	8	Tow Vehicle	No Data
WIRES3	8	Wires Down	31.58612
E55	9	Unknown	19.57676
MOV	9	Mover - Vehicle	No Data
NOT	9	Notification	22.50287
SS	9	Unknown	7.565202
T	9	Traffic Stop	No Data
TRANS	9	Transport Person	37.31434

X. FINDINGS AND OBSERVATIONS

The Operations Branch utilizes a five-day, eight-hour shift configuration to deploy officers, a shift schedule which enables efficient use of personnel. We recommend that this schedule be maintained.

The Branch deploys three shifts a day. Two overlap shifts, with additional officers, are added for key hours. The shift times and selected, and the additional flexibility provided, are effective. We recommend that this configuration be continued.

Average response times for the more serious calls are higher than IACP would recommend. Average time from call received by dispatch to arrival on scene is 11.71 minutes for Priority 1, 14.4 minutes for Priority 2, and 18.77 minutes for Priority 3. If these total response times are compared with drive times (time call dispatched to officer to time police arrive on scene) one can see considerable disparity. For example, drive time for Priority 1 is approximately 5.23 minutes. This contrasts with a total response time of 11.71. It takes somewhat more than 30 seconds to dispatch a high priority call. The greater delay witnessed results from a dispatcher having to wait for an available police unit to respond to the call. Pittsburgh's response times are symptomatic of insufficient patrol staffing. Reductions in these response times are warranted.

We have already stated our recommendation that operational labor remain at/not continually exceed 30% and that an uncommitted time ratio of 45-50% be maintained. These expectations are not currently being met and the ability to do so is beyond the capacity of the current deployments/patrol resources.

Based upon the July/August 2004 data set, the amount of time the average primary response unit engaged in operational labor was 44%. When operational labor and time expended on administrative functions are considered, obligated time was 62%, restricting uncommitted time to 38%, below the 45% minimum we believe to be warranted. Since additional retirements have occurred since our analysis was conducted, mainly during the last calendar quarter of 2004, it can be anticipated that the amount of operational labor engaged in by primary response officers is now probably even higher than 44% and uncommitted time below 38%.

There are several implications of high operational workload:

- ❑ Response times suffer.
- ❑ Neighborhood and business patrols decline. With more immediate duties occupying time, patrol intervals suffer. Patrol visibility declines, and patrol of hotspots and key areas also declines. (A patrol interval

designates the number/frequency of times a patrol car or officer can pass/monitor a specific location.)

- ❑ Self- initiated crime fighting and traffic control decline. Officers spend less time on proactive activities, stopping crimes before they occur.
- ❑ Community police and problem solving initiatives by officers decline. With more calls per officer, time is spent responding to ongoing problems taking time from prevention activities.

Our field observations suggest that precisely this is occurring. Field observations were also reinforced by officers, resident and business concerns about the growing workload of Pittsburgh's Patrol.

XI. STAFFING REQUIREMENTS

We recommend a total field patrol complement of 684:

- ❑ 414 primary response officers
- ❑ 106 specialized patrol positions
- ❑ 16 SERT and Accident/Intox officers
- ❑ 105 commanders and supervisors
- ❑ 43 civilians for support.

The current field patrol complement is 571. Accordingly, our recommendations call for an increase of 113 positions, 19.8%. The increases are accounted for by:

- ❑ Officers: 48 officers
- ❑ Supervision: 37 officers
- ❑ Civilians: 28

Our recommended complement of sworn officers is as follows:

<u>Position</u>	<u>Number</u>
Assistant Chief	1
Commander	5
Lieutenant	16
Sergeant	83
Officer (includes master police officers, canine, and zone detectives)	<u>536</u>
Total Sworn	641

SECTION 1: PRIMARY RESPONSE

To achieve 30% operational labor conditions and less than 50% obligated time requires an average of 211 primary response units per day. To field 211 primary response units with the department's current mix of one and two-person response units requires **258 primary response officers per day**. The number of primary response units required is based on Pittsburgh's current patrol strategies (mix of one and two-response unit). To provide 258 primary response officers per day, since Pittsburgh has an availability factor of 1.78, requires 461 primary responders.

Two officer primary response units are being deployed in Pittsburgh Patrol. Most modern police agencies utilize almost exclusively single officer response units. A number of research studies (San Diego Study) reveal that there are few if any benefits to be gained by two-person primary units. If two person units are replaced by single officer units, a reduction of 47 officers is available. We recommend this action. Accordingly, 211 primary response units can be fielded with 233 officers per day, a total of 414, allowing for a 1.78 replacement factor.

SECTION 2: SPECIALIZED PATROL POSITIONS

The Operations Branch currently fields by zone a number of support and specialized positions. These include, at full staffing:

- ❑ Four Community Problem Solving officers per zone (six in Zone 3): 22 officers
- ❑ One desk officer per shift per zone; 27 officers
- ❑ Four plainclothes officers per zone (six in Zone 3): 22 officers

- ❑ Officers housed in Zone 2 with citywide traffic related responsibilities: 30 officers
- ❑ Five officers in River Patrol
- ❑ 25 officers deployed across the zones for bike patrol.

This totals 131 officers assigned to duties other than primary response.

We recommend that all specialty patrol positions be maintained with the exception of the desk officers. Review of function, workload and staffing levels indicate productive contribution of agency and patrol public safety objectives. Community problem solving officers provide zone commanders with a tactical presence and a cadre of officers to address emerging problems and address community concerns. Plainclothes officers fight street crime and investigate cases that the Investigations Branch is not resourced to address. Traffic control, direction, parking control, and special events services are crucial to safety and quality of life in the urban setting. Bike patrols are particularly effective in congested areas, downtown areas, and at special events. River patrol works with other city agencies to insure water safety, address emergencies, and respond to problems along the riverfront.

However, there are changes in the way Pittsburgh Patrol is currently configured that could lead to reductions in required sworn staff without negative consequence to their mission. The first was already considered, elimination of two-person units.

Another obvious savings has been pointed out by previous studies. The desk officers should be civilianized. This would reduce sworn positions by 25. They would be replaced by non sworn personnel. In a number of agencies, retired police officers are being recruited for such duties. This reduction of desk offices will lead to a savings of 25 officers reducing the need for non-primary patrol officers to 107.

Our requirements/recommendations account for this reduction.

SECTION 3: SERT, CANINE, ACCIDENT/INTOX

The Operations Branch deploys officers who supply specialized expertise and service as well as function as primary responders. The Special Emergency Response Team (SERT) officers function as an emergency response team when required. Based on discussions with officers and supervisors, it is estimated that the 12 primary SERT officers are available for routine patrol and primary response about 50% of the time; the 20 secondary SERT team members are available about 75% of the time. To fill the gap in

primary response coverage due to these officers' involvement in SERT training and response will require 11 additional officers.

A number of specially trained officers are assigned to accident and intoxilyzer duties. Currently 11 officers serve in this capacity. They are largely located in Zones 3, 4 and 5. It is estimated that these officers have a reduced availability of approximately 25%. This would require four additional officers to cover the gaps in primary response capabilities.

SECTION 4: COMMAND AND SUPERVISION

Command and supervision for Patrol currently totals 69:

- Assistant Chief
- Five Commanders
- 17 Lieutenants (one for SERT, one for HQ)
- 46 Sergeants (one for Traffic).

Patrol has a very low supervisory ratio in patrol. The total supervisory ratio is approximately seven officers for each supervisor. Our concern, however, lies with first line supervisors, who directly monitor and assist officers on the street. The first line supervisory ratio is approximately one sergeant to every 10 officers. With recent retirements of seasoned officers and a planned influx of new officers (48 currently in the academy), a stretched ratio takes on added significance. This will be particularly critical in Zone 3 where staff/supervisor ratios are far higher than desirable. First level supervisors, sergeants, are particularly crucial to training and directing young officers. We recommend that the number of sergeants on each shift be raised from the current base of three to five per shift and to six sergeants per shift in Zone 3. This calls for 33 additional sergeants. While the increase in sergeants will increase the number of units on the street, it will not significantly impact officer workload, since supervisors generally do not serve as first responders. However, more sergeants will improve officer safety, since sergeant frequently back up officers. This should reduce some officer trepidation arising from the reduction in two officer units.

The Traffic Unit with a proposed staffing of 30 officers also requires additional supervision. We recommend an additional lieutenant to coordinate the Traffic Unit and three additional sergeants. This would provide five sergeants to supervise the traffic detail.

The 33 sergeants for patrol and the four sergeants and a lieutenant for traffic would lead to increase of 37 sworn (one lieutenant is transferred to Chief's Office).

XII. CIVILIAN STAFF

In the absence of adequate clerical/administrative support, sworn officers are frequently assigned to these functions. This is not an efficient use of sworn personnel. The situation characterizes the Operations Branch. Currently, the Operations Branch has 15 civilian positions. These positions include eight clerical specialists, one supervisor, five clerks, and a clerk steno III. The civilian staff provided clerical and administrative support for the Operations Branch at headquarters and at the zones. They type reports, collect information, complete reports and perform a wide range of administrative tasks.

The current civilian staff is insufficient to address all of the administrative tasks required to maintain the Operations Branch. Officers and sergeants report that they are frequently called upon to perform routine administrative tasks that could be performed by a civilian.

To remedy this situation we recommend the following civilian staff:

- Six secretarial/administrative assistant positions (one for each zone commander and one for the Assistant Chief) be provided
- 12 clerical staff to maintain books, do filing, track expenses, etc. (two for each zone, two for traffic, two for Assistant Chief's Office)
- 25 desk staff (five for each zone) to replace desk officers.

This would provide a civilian staff of 43 for patrol.

XIII. DEPLOYMENT OF PRIMARY RESPONDERS

Workload varies significantly by zone and by shift. To provide proper patrol coverage by zone, primary response officers should be distributed as follows:

Number of Recommended Primary Response Officers - Per Zone					
Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Total Staff Size
73.5418	79.2564	138.8209	73.0221	95.5597	460.2010
74	79	139	73	96	461

Within shift, officers must be deployed as follows, by day of week and shift. The deployment recommendations recognize the current scheduling practices of the Operations Branch. This introduces some limitation in deployment options.

The department assigns personnel from the varied shifts to split shifts. It is our recommendation that they continue this practice. In assigning personnel to split shifts, night shift should contribute officers to the split shift in proportion to the reductions in workload that a split shift will realize for nights.

		Zone 1						
		Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
12a - 8a	On	12.2	11.3	13.6	10.7	12.7	12.7	14.7
17.6	Off	5.4	6.3	4	6.9	4.9	4.9	2.9
8a - 4p	On	12.7	17.9	19.9	16.4	19.6	18.3	14.2
23.8	Off	11.1	5.9	3.9	7.4	4.2	5.5	9.6
4p - 12a	On	22.3	22.7	25.5	21.9	21.4	22.8	24.3
32.2	Off	9.9	9.5	6.7	10.3	10.8	9.4	7.9
		Zone 2						
		Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
12a - 8a	On	18.3	14	12.9	13.4	16.7	16.5	17.1
21.8	Off	3.5	7.8	8.9	8.4	5.1	5.3	4.7
8a - 4p	On	15.8	22.6	20.4	18.9	23.7	23	18.6
28.6	Off	12.8	6	8.2	9.7	4.9	5.6	10
4p - 12a	On	18.6	21	20.8	19.6	21.5	23.1	19.9
28.9	Off	10.3	7.9	8.1	9.3	7.4	5.8	9
		Zone 3						
		Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
12a - 8a	On	27.9	21.3	23.1	22.4	25.4	27.7	28.7
35.3	Off	7.4	14	12.2	12.9	9.9	7.6	6.6
8a - 4p	On	28.6	30.9	33.7	28.9	34	37	35.3
45.7	Off	17.1	14.8	12	16.8	11.7	8.7	10.4
4p - 12a	On	42.5	43	39.1	35.7	42.4	43.3	43.1
57.8	Off	15.3	14.8	18.7	22.1	15.4	14.5	14.7

		Zone 4						
		Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
12a - 8a	On	13.7	11.1	11.2	10.9	11.5	12.2	13.9
16.9	Off	3.2	5.8	5.7	6	5.4	4.7	3
8a - 4p	On	14.8	18.2	22	19.3	21	21	18.2
26.9	Off	12.1	8.7	4.9	7.6	5.9	5.9	8.7
4p - 12a	On	16.4	23.6	23.3	18	21.5	22.7	20.5
29.2	Off	12.8	5.6	5.9	11.2	7.7	6.5	8.7
		Zone 5						
		Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
12a - 8a	On	19.7	18.8	18	18.7	17.7	15.5	22.2
26.1	Off	6.4	7.3	8.1	7.4	8.4	10.6	3.9
8a - 4p	On	18.8	24.1	23.5	24	24.1	22.9	24.2
32.3	Off	13.5	8.2	8.8	8.3	8.2	9.4	8.1
4p - 12a	On	24.8	27	29	26.9	23.5	24.3	30.5
37.2	Off	12.4	10.2	8.2	10.3	13.7	12.9	6.7

XIV. LONGER-TERM ACTIONS TO REDUCE COST

Additional long-term actions the department can undertake to reduce workload include:

- **Telephone Reporting.** Many departments reduce calls-for-service by utilizing telephone reporting. Trained civilians (and officers on light duty) take a wide range of reports over the phone. A patrol unit does not have to be sent. Departments have realized call reductions from 10% to as high as 30%. Kansas City Police Department, for example in July of 2001 received 60,123 calls, of those calls 45% were handle without the dispatch of a patrol unit.

The PBP is establishing a Telephone Reporting Unit (TRU) in the Administrative Branch. It is planning to hire 7 civilians. Consideration should be given to integrating the TRU function into the civilian desk officer program in the zones. To make effective use of personnel, when zone desk personnel are free, calls could be routed from the

Communications Center to zone desk personnel and reports taken in the station house or the TRU Center.

It takes substantial time to mount an effective TRU program - perhaps a year or more to achieve a smooth operation. We estimate that one unit can be removed from primary response duty or switched to another capacity for every 15-20 calls per day diverted to the TRU.

- **Transportation Wagon.** The wagons operate to transport prisoners. When not transporting prisoners, wagon officers respond to calls. Wagons are two officer assignments. Generally, a wagon is fielded on each shift in each zone. Wagon utilization needs to be studied to see if prisoner transport is justified on each shift for each zone. (Data were not available to us in the current database to draw conclusions.) Officers generally have to go to the jail site for paperwork completion and submission on arrests. The question is raised if an officer has to respond to the jail for paperwork, could they as easily transport their prisoner. Single officer cars would be used to replace wagons not required for transport saving an officer per unit not required. If wagon use could be shared and wagons reduced by 50%, this would require approximately six fewer officers, a potential savings of \$480,000.

- **Fleet Sufficiency.** The Operations Bureau's fleet is not sufficient to support current patrol operations. The breakdown rate is high and repair of vehicles is inhibiting primary response. With the additional units proposed it is important that additional vehicles be added to patrol to ensure that primary response vehicles are available.