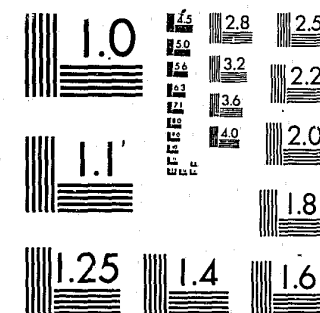


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DEPARTMENT OF FINANCE

CENTRALIZED TO DECENTRALIZED
SERVICES PHASE II

CALIFORNIA STATE POLICE DIVISION

DEPARTMENT OF GENERAL SERVICES

79920

CENTRALIZED VS. DECENTRALIZED
SERVICES, PHASE III
CALIFORNIA STATE POLICE DIVISION
DEPARTMENT OF GENERAL SERVICES

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PREPARED BY
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MARCH 1979

NCJRS

JUN 29 1981

ACQUISITIONS

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PREFACE

One year ago the Program Evaluation Unit undertook a series of evaluation studies concerning services provided by the Department of General Services. The unifying theme of the series has been consideration of the costs of centralized versus decentralized provision of services. Our Phase I report dealt with General Services' Space Management Division, Buildings and Grounds Division, Fleet Administration Division, Records Management Division, and Office Machine Repair Services, Office Services Division (Report D77-40, August 1977). The administrative hearings held by General Services' Office of Administrative Hearings and other State agencies were examined in our Phase II report (D78-3, November 1977). This report concludes the study series. Field work for the study was performed between November 1977 and March 1978.

The report is organized with Chapter I providing background information concerning the California State Police Division's (CSP) history, legal authority, funding, organization, and operational detail. Chapter II takes a critical look at the CSP's cost effectiveness. Finally, Chapter III evaluates the service costs of other State agencies' security personnel versus the similar CSP services which are available to them.

The California State Police Division has recently been described in the press as "the most diversified protection agency in the state."^{1/} It is a proud organization with its origins found in the Capitol Police of a

^{1/}Sacramento Bee, February 14, 1978, p. B1.

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century ago. The CSP emblem carries the motto "Dedicated to Service," and we have found that commitment characteristic of the many members and employees of the CSP with whom we had contact during this study.

Many people in the state, local, and Federal governments and in the private sector assisted us during this study, and for that help we are grateful. We especially appreciate the outstanding cooperation of the members and employees of the California State Police Division.

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SUMMARY

The California State Police Division, Department of General Services, is a highly diversified security agency with statutorily authorized duties primarily confined to providing protection and police services to constitutional officers and legislators and to state facilities' occupants. To carry out these responsibilities, the CSP is presently authorized over 280 peace officer, 27 non-peace officer security guard and 16 non-uniformed support positions. The division's 1978-79 budget is for \$7.6 million.

Funding for CSP operations is derived from three sources. About 25 percent of the resources are appropriated from the General Fund and are applied to Capitol and constitutional officer protection. The remaining support is about equally divided between pro rata and contract reimbursements to the Service Revolving Fund of the Department of General Services. Routine police and protective services for state facilities in many of the State's urban areas are provided by the CSP under the pro rata billing system, i.e., all state agencies within the covered area are charged a proportionate amount of the services' costs. The CSP also provides services over and above the pro rata service levels on a contractual basis.

During our study we have evaluated two areas of concern. The first, detailed in Chapter II, deals with the cost effectiveness of the CSP in meeting the State's security and police needs relative to alternative methods of furnishing such service. The second, following

in Chapter III, involves inspection of state agencies which are now duplicating CSP services. In both areas we have made recommendations which can lead to cost savings for the state while maintaining or enhancing the effectiveness of security services.

Organizational Role and Cost Effectiveness (Chapter II)

Our predominant finding has been that over a period of many years, there has evolved a duplicative and unnecessarily expensive law enforcement staffing policy within the CSP. Rather than supplementing local law enforcement capability with facility security personnel as is common private sector practice, the state has unilaterally supplanted local law enforcement on much of the state's property. Upon looking at the intergovernmental cost ramifications of most such duplication we conclude that California's taxpayers are not best served by its continuation. Certainly there are areas where the state does require law enforcement authority and capability, and the State Police are good service providers in such instances. These have been noted in the text.

Another area offering potential cost effectiveness improvement is that of risk management. Here, state agency managers as well as the CSP need to overcome the lack of economic decision-making data in agency security surveys. Such surveys should provide an appraisal of the estimated annual economic costs of the risks being considered and provide an array of countermeasures with their costs and relative effectiveness from which to choose a course of action. (We recognize,

of course, that there is a need to balance economic with social considerations when analyzing risks.) Based upon these broad findings, the following recommendations for CSP operations and staffing are made (see pages 34 and 35):

- Protection for the Governor, and other constitutional officers and legislators should remain a CSP responsibility. Only a state-level security organization could provide such protection on a continuous basis.
- Capitol and Capitol Area protection and police services should remain a CSP responsibility, acknowledging the concurrent jurisdiction of the Sacramento Police Department. Clear and historic legislative intent and state practice, the symbolic attraction of the Capitol for public demonstrations and the concentrated nature of state facilities combine to justify this CSP function.
- State Police services in other parts of the state should be sharply reduced because of the capability of local law enforcement agencies to provide those services. The phase-out of police services could be staged to include:
 - Pro rata patrol removal from outlying areas
 - Restraint from expansion into new areas of pro rata coverage
 - Eventual removal of peace officers from central city pro rata beats
 - Screening all contract peace officer assignments to determine the ability of local law enforcement agencies to provide police services

There are approximately 87 police officer and security officer positions which could be affected by this reduction. (This figure excludes: sergeants and above, police officer dispatchers and all Sacramento and California Water Project peace officers.)

- Facility security services over and above normal local law enforcement capability should be provided by the CSP as justified by security survey. This role is comparable to facility security as provided in the private sector. We would expect many of the pro rata and contract peace officer positions to be reclassified as security guard positions in conjunction with this realignment. Dispatch/monitor capability provided for facility security may be economically contracted with "central

stations" in some areas and on some shifts.

- The employee and property protection programs may need additional staff--from areas of program reduction--to strengthen the CSP's security analysis capability. These programs are of statewide application and could be more equitably funded from the General Fund than from pro rata billings.

Security Services--Interagency Duplication (Chapter III)

Our major finding in this area is that the CSP can be as efficient or more efficient in providing non-institutional security than line agency security staffs at equivalent levels of service. It is true that the contract service rates which General Services charges its clients appear high by virtue of the fact that such charges reflect all overhead costs. But when state expenditures as a whole are considered--not just client agency expenditures--economies of scale can be realized through centralized security services.

Exceptions to this general finding are important, however, and we have noted several areas where CSP takeover of service would not seem to offer any cost advantages to the state. These exceptions are characterized by unique job duties, facility remoteness from concentrations of CSP personnel and/or legal autonomy of the agency.

Government Code Section 14613 charges the Department of General Services to provide state agencies with police and protective services "as necessary." It is the opinion of General Services' Legal Office that the Government Code carries an implicit prohibition against agencies hiring their own security personnel in the absence of either delegated authority from the CSP or an express statutory provision to hire such personnel. We believe that the ability of the CSP to delegate

security tasks provides sufficient management flexibility to use the least expensive security option in any cases where a line agency might be able to perform security tasks more efficiently than the CSP.

Recommended service consolidations in the CSP affect the following agencies:

Employment Development Department (p. 42)

The Employment Development Department employs two security guards to verify the identity of employees entering the Department's data processing facility.

1. The two security guard positions at EDD should be eliminated and the CSP should monitor the Mardex (access control) system at all times from the Capitol. If remote monitoring is not satisfactory, consideration should be given to passive equipment for employee identification and access control.
2. If on-site security guards at EDD can be justified by risk analysis, in accordance with SAM Section 4845 et seq., the CSP should provide the service.

Department of Justice (p. 48)

The Department of Justice has a staff of eleven security officers serving its 33rd and C Street, Sacramento, facility.

1. Security staffing should be reduced by the number of staff necessary to physically control the employees' entrance, i.e., 4.8 PY. Passive equipment should be used to monitor this entrance.
2. As the least costly alternative to state government as a whole, and in compliance with Government Code Section 14613, the CSP should staff the DOJ security posts with a class equivalent to the one appropriate for use at DOJ, i.e., Security Guard.

California Museum of Science and Industry (p. 50)

The CMSI employs 27 security guards, officers, and watchmen to provide museum security and parking control at Exposition Park in Los Angeles. The appropriateness of MS&I staffing levels is subject to further review.

- The CMSI should contract with the CSP to provide the appropriate number of posts, using non-peace officer personnel. Also, parking control staffing for Coliseum and Sports Arena events should be provided by CSP at straight-time rates. If the CSP cannot meet these two conditions, the service should continue to be provided by CMSI.

California Exposition and State Fair (p. 52)

Cal Expo currently employs seven security guards on a full-time basis and augments this staffing with 70 off-duty police officers during the State Fair. The agency is in the process of establishing a full-time force which would include a police chief and four peace officers.

1. In the interest of uniform provision of security services and in view of the lack of adverse fiscal impact on state government by such action, the California State Police should provide security services at Cal Expo, and State Fair coverage should continue to be augmented by off-duty peace officers as long as such personnel are available at competitive rates.
2. No peace officers should be permanently assigned at Cal Expo because of the availability of local and State Police law enforcement response.

Public Health Laboratory, Berkeley (p. 54)

The Department of Health staffs an around-the-clock security post at the Berkeley lab complex using four security guard positions.

- Reflecting the provisions of Government Code Section 14613 and our preference for the uniform provision of security services where there are no adverse statewide fiscal impacts, we recommend that the Department of Health contract for CSP security guard services at the Public Health Laboratory.

We found no compelling reason to use the CSP to furnish law enforcement for the departments of Parks and Recreation (excepting Cal Expo) or Fish and Game. Similarly we were unable to support a shift to CSP services for the following institutions: state hospitals, the University of California, the California State University and Colleges, and the Veterans Home at Yountville. These agencies are discussed beginning on page 55.

CHAPTER I

INTRODUCTION: THE CALIFORNIA STATE POLICE

History

The California State Police (CSP) began with the appointment of Capitol policemen by the Board of Capitol Commissioners in the 1860's. In 1933, the Director of Finance was given appointment authority for the ". . . Chief of State Police and other such peace officers . . . as may be necessary to properly guard . . . the Capitol building and grounds" ^{1/} The responsibility of the CSP was extended to all State buildings and grounds in 1937. ^{2/} With the creation of the Department of General Services in 1963, the CSP was moved to that new agency and included in the program pertaining to facilities maintenance and protection. ^{3/} The protection function was segregated within General Services' new California State Police Division in 1967.

A century after its beginning, the CSP underwent a major change--from a custodial "plant security" force to a unit with substantial emphasis on police work. The events leading to such a change began with a serious public disturbance within the legislative chambers in 1967. That disturbance, and legislative concern about the social upheavals of that period, led to adoption of Assembly Concurrent Resolution 121/67, which called upon the Chief of the CSP to plan, with other state and local agencies, for meeting future emergencies ". . . at, or on the grounds of, the State Capitol, the Governor's Mansion or the residence of any other constitutional officer" The

^{1/}Chapter 495, Statutes of 1933.

^{2/}Chapter 189, Statutes of 1937.

^{3/}Chapter 1786, Statutes of 1963. The enabling statutes from 1933 to 1963 had combined the authority to guard and maintain buildings and grounds.

Resolution also directed the Director of General Services to submit a plan for the reorganization of the CSP by January 1, 1968.

The resulting reorganization plan included recommendations to:^{4/}

- Rename the California State Police the "California Security Police" to better describe the limited scope of its duties
- Establish Security Police Officer and State Security Guard civil service classes to replace the State Policeman class, the officer class to be used "where there are police type problems" and the guard class "to perform necessary non-police security functions"
- Establish a "Special Services Section" to provide the initial emergency response capability called for in ACR 121
- Adopt criteria for the provision of the various levels of protective services
- Recover costs, except for Capitol protection and special services for the Governor and other officers, through agency reimbursements

The reorganization plan was largely implemented on July 1, 1968, although the proposed name change to "California Security Police" did not occur, and the reimbursement feature was delayed. In his 1969/70 Analysis of the Budget Bill, the Legislative Analyst noted that the new Police Officer class carried a salary range about 10 percent higher than the former Policeman class, and the Security Officer class was 10 percent below the former range. The Analysis further stated, "The security officer will perform duties that are similar to those of a plant guard in private industry. Under the new plan there will be 70 police officers and 45 security officers."^{5/}

Protection for the Governor received a further boost in 1969 when a former member of the Federal Secret Service joined the Governor's staff to manage his protective services. These duties are now under the jurisdiction of the CSP.

^{4/}California Department of General Services, Proposed Plan for Reorganization of California Security Police Division, January 8, 1968.

^{5/}California Legislative Analyst, Analysis of the Budget Bill . . . 1969/70, March 1, 1969, p. 36.

Chapter 372, Statutes of 1970, essentially served the purpose of conforming the law to existing CSP practices by:

- Designating the existence of the California State Police Division within General Services (separate from buildings and grounds)
- Naming the civil service classes to be used by the CSP
- Changing the statutory mandate from ". . . guard . . . state buildings and grounds . . ." to ". . . protect and provide police services for the state buildings and grounds and occupants thereof"
- Permitting the CSP to provide protective services to constitutional officers and legislators

It is in conformance with this legislative direction that the CSP has functioned during the seventies.

The increased level of service provided by the CSP during the past decade has, of course, caused higher program costs. Staffing has more than doubled from 152 positions in 1968/69 to 319.5 proposed for 1978/79, expenditures from \$1.3 million to \$7.6 million.^{6/} During this same period, state government, measured in terms of the number of civil service employees, expanded by 20 percent.

Authority

Broad statutory authority for the Director of General Services to appoint CSP members and employees "as may be necessary" to protect and provide police services for state facilities and employees is found in Government Code Section 14613. That section also permits CSP to provide protection for constitutional officers and legislators.

^{6/}The equivalent of \$4.2 million in 1968/69 dollars based on Department of Finance California Consumer Price Index estimates.

The definition of what constitutes state property for purposes of Section 14613 is found in California Administrative Code, Title 2, Section 1201(c), and includes "all property owned, leased, rented, controlled, used, or occupied by any Department or part thereof of the Government of the State of California."^{7/}

Peace officer status is conferred upon State Police Officers, "provided, that the primary duty of any such peace officer shall be the protection of state properties and occupants thereof," by Penal Code Section 830.2(b). Similarly, Penal Code Section 830.4(a)(1) designates CSP Security Officers as peace officers "while engaged in the performance of the duties of their . . . [employment]." Both Police Officers and Security Officers may exercise peace officer power off state premises when there is probable cause to believe that an offense has been committed with respect to their jurisdiction.^{8/} In addition, the police officers have peace officer power in emergency and mutual aid situations.^{9/}

Executive Order B-6-75 and Office of Emergency Services Administration Order 75-19 conferred upon the Department of General Services the responsibilities for employee emergency and property protection planning. The California Administrative Code, Title II, Sections 1201-1206, prescribes various state building, park, vehicle parking and public demonstration regulations which CSP enforces in addition to the state laws.

The implementation regulations for these various authorities are found in the State Administrative Manual, Sections 2601 through 2677. Elsewhere in SAM, state agencies are required to secure CSP approval for property

^{7/}Promulgated under the authority of Government Code Section 14685, which empowers the Director to "establish rules and regulations for the government and maintenance of the state buildings and grounds."

^{8/}Penal Code Sections 830.2(b) and 830.4(b).

^{9/}Government Code Sections 8597, 8598, and 8617.

protection devices,^{10/} required to report certain crimes to CSP,^{11/} and informed of CSP's ability to advise on EDP facility security.^{12/}

Program Operation

Organization and Duties

Figure 1 depicts the organizational structure of the California State Police Division. The Services provided by each of the organizational components are described below.

The Protective Services Bureau is responsible for the safety of the Governor and provides intermittent services, as needed, to the other constitutional officers and legislators. The bureau is comprised of 9.5 peace officers, ranging in classification from police officer to inspector.^{13/}

Services performed by the Administrative Services Bureau include: communications, accounting, training, safety programs, personnel, program analysis, and data processing. Staffing for this bureau is currently established at 15 positions, including both uniformed and non-uniformed employees.

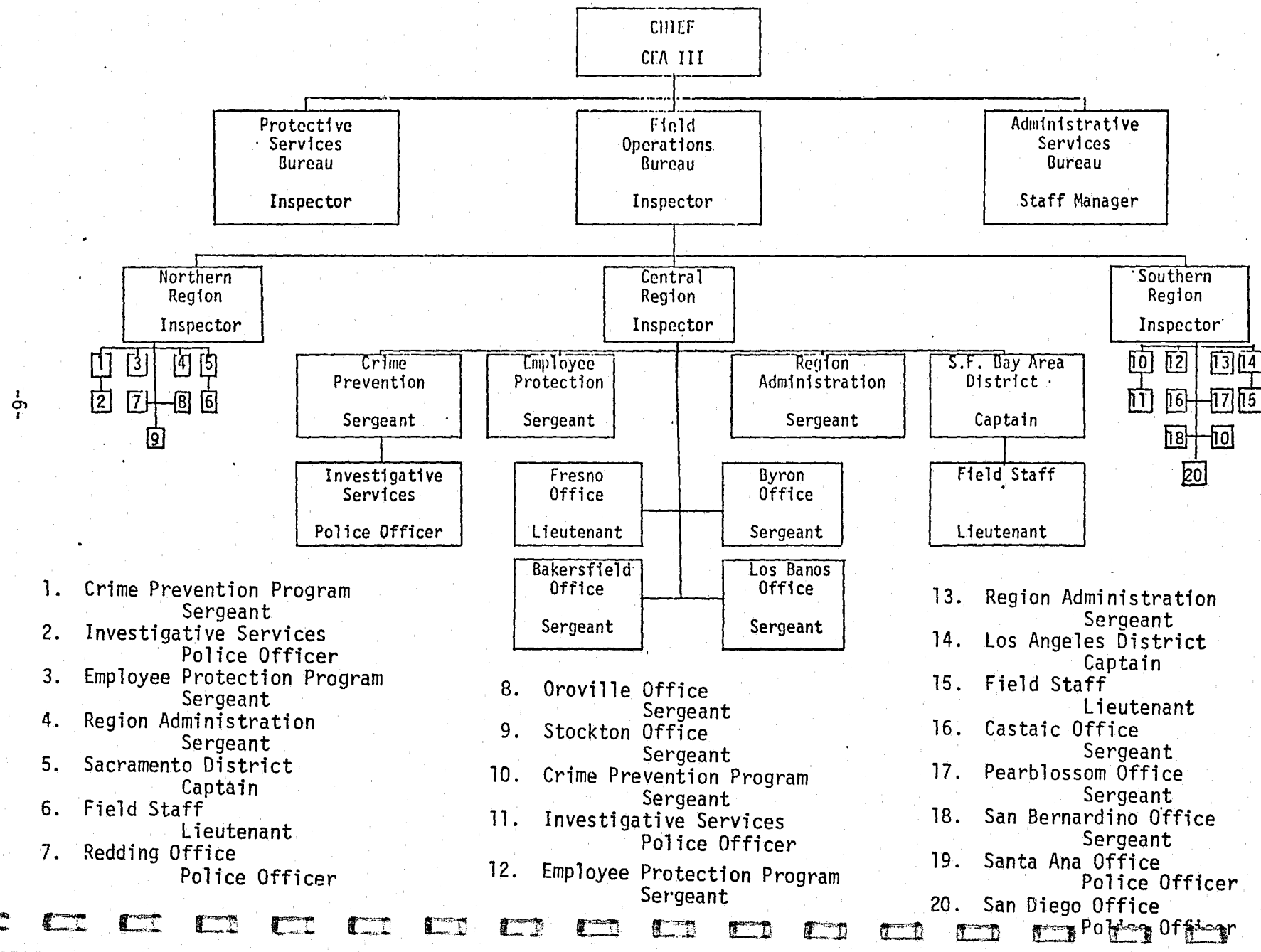
The major portion of the CSP's resources - 302 peace officers, security guards and non-uniformed support personnel - is assigned to the Field Operations Bureau and provides law enforcement, security and safety services for state facilities and employees.

^{10/}California State Administrative Manual (SAM) Sections 1403.9 and 1404.
^{11/}SAM Sections 0601 and 8657.

^{12/}SAM Section 4845.1.

^{13/}The 9.5 staffing level can be augmented as necessary by personnel from the Field Operations Bureau when special security needs arise.

FIGURE 1
ORGANIZATIONAL CHART
CALIFORNIA STATE POLICE DIVISION



Law enforcement duties in this bureau include: criminal, accident and property damage investigating and reporting; arresting suspects; testifying in court; providing explosive ordnance disposal; providing personal (bodyguard) protection; maintaining crowd control; issuing citations and serving warrants and subpoenas; and performing state court bailiff functions.

Oriented toward security functions (but having a law enforcement impact as well) are such Field Operations Bureau activities as: patrolling state buildings, parking lots and other facilities; performing identity verification of people entering restricted areas in state facilities; verifying that state facilities are secured after working hours; preparing employee identification documents; performing security surveys for state facilities; managing the State's Employee and Property Protection programs; escorting cashiers; and escorting employees after dark.

Safety services range from general emergency and disaster evacuation duties to providing first aid and cardio-pulmonary resuscitation (as well as giving training in these lifesaving techniques). The ATSS all-emergency telephone number - 181 - is also a CSP service to state employees.

Funding

Funding for the CSP is derived from two distinct sources. General Fund appropriations (\$1.6 million for 78 PY in fiscal year 1976-77) provide about a quarter of total CSP program funding^{14/} and are used

^{14/}A desk audit of four months' of the CSP's employee time reporting data confirmed that budgeted versus actual expenditures by fund source were in close agreement.

exclusively for the protective services program and for protection of the Capitol and Capitol Park, activities which are government-wide in their cost sharing impact.^{15/} The major portion of the CSP's services, however, is funded from reimbursements from client agencies to the Department of General Services' Service Revolving Fund. The Service Revolving Fund, in turn, receives reimbursements for the CSP's services from pro rata^{16/} and contract payments.^{17/}

Pro rata reimbursements (\$2.7 million for 118 PY in fiscal year 1976-77) comprise forty percent of the CSP's total budget. The payments are billed quarterly in advance to client agencies which are located within the CSP's metropolitan service areas described in SAM Section 2625. Clients are billed at a rate of \$35.40 per employee and \$0.047 per square foot of parking space (fiscal year 1977-78 rates).

Pro rata services are described in the Price Book as providing:

...the minimum level of basic police and security protection...The service does not provide for the continued presence of either an officer or a guard. It does provide for the routine patrol and protection of occupants of state property and for the property itself.^{18/}

^{15/}The proportional share of the division's overhead, including the Administrative Services Bureau's costs, attributable to these activities is also funded from the General Fund appropriation.

^{16/}Throughout state government, the term "pro rata" is commonly used to describe the statewide distribution of the General Fund costs for the Legislature, Governor's Office, Department of Finance, etc. In this report, "pro rata" is limited to the CSP's application of the term, i.e., Service Revolving Fund billings.

^{17/}Again, overhead charges are proportionally distributed to these billings.

^{18/}California Department of General Services, Price Book, (1977/78 - 1978/79), p. 19.

Functionally, pro rata services include all of the activities listed previously for the Field Operations Bureau with the exceptions of services related to Capitol and Capitol Park protection (General Fund items) and security surveys (contract reimbursement item).

Contract services reimbursements (\$2.3 million for 115 PY in fiscal year 1976-77) are about thirty-five percent of the CSP's funding. The payments are made monthly in arrears and are based upon actual hours of service provided at the following rates (for 1977-78 contracts): police officer, \$19.25 per hour; security officer, \$15.80; and security guard, \$9.60.^{19/}

An agency typically becomes a client for CSP contract services when it has identified a security problem which cannot be dealt with through normal pro rata services. The CSP usually responds by surveying the security characteristics of the client agency and preparing a report which defines any security needs and proposes solutions which may include recommendations for installing passive security equipment, modifying the flow of traffic with minor structural changes, and/or assigning security personnel. The CSP bills the agency for the security survey as a contract service. If the security survey recommends additional security personnel, the client agency proceeds to contract with the CSP for the required posts.

An example of contract coverage in an area where pro rata back-up services exist is found at some Employment Development Department Service Centers, which have a large flow of clients. The CSP provides police officers to assist the public and provide crowd control. Another example

^{19/}Ibid.

of contract coverage, but where no pro rata back-up service exists, is the patrolling of the Department of Water Resources' State Water Project, which crosses a number of law enforcement jurisdictions.

Staffing

The current authorized strength of the CSP is shown in Table I. Non-supervisory, uniformed personnel are included in the police officer, security officer and security guard classifications and comprise 78 percent of total CSP staffing. Of these three classes, only the security guards do not have peace officer powers vested under the Penal Code (see page 4).

Determination of the classification to be used on a given post or beat is made by the CSP and guided by SAM Section 2611a, which states:

- Public, densely populated state facilities are appropriately patrolled by State Police Officers
- Vacant or sparsely populated state facilities are appropriately patrolled by State Security Officers.^{20/} This includes service in the night-time for areas which may be densely populated during ordinary working hours.

The current trend in CSP staff utilization is to phase out the security officer class as personnel attrition allows. The security officer positions will be transferred to police officer and security guard classifications dependent upon a post-by-post review of the particular duties required of each incumbent.

^{20/}The security guard classification was added after this section was published in 1971.

TABLE I
CALIFORNIA STATE POLICE
AUTHORIZED POSITIONS*

February 1978

Classification	Monthly Salary Range 1977-78	Positions	Percent of Total Uniformed
Chief	2,160-2,608	1	0.3
Inspector	1,668-2,012	5	1.6
Captain	1,519-1,831	3	1.0
Lieutenant	1,385-1,668	7	2.3
Sergeant	1,263-1,591	39	12.6
Police Officer	1,152-1,630	180	58.0
Security Officer	1,006-1,206	38	12.2
Security Guard	740-884	27	8.7
Temporary Help/Overtime		10.5	3.3
Subtotal, Uniformed Personnel		310.5	100.0
Non-Uniformed Personnel		16	
Total Authorized Strength		326.5	

*Additional positions have been approved for transfer to CSP since publication of the 1978/79 Governor's Budget which showed 318.5 full year positions for 1977/78.

CHAPTER II
ORGANIZATIONAL ROLE AND COST EFFECTIVENESS

"...protect and provide police services..."

Government Code Section 14613, as amended in Chapter 372, Statutes of 1970, states:

...The director shall appoint members and employees of the California State Police Division as may be necessary to protect and provide police services for the state buildings and grounds and occupants thereof....

This statutory requirement makes discretionary the actual level of service to be provided by the CSP. The issue which is raised is one of program emphasis. "Protection" and "police services" are not necessarily synonymous, and the selection of one area of emphasis over the other can have significant economic implications.

The protection, or security, role can mean different things to various observers. Two RAND researchers, in a 1971 report, postulated that the property owner considers security in terms of loss reduction, that police add the criterion of potential for offender apprehension, that insurance underwriters consider recovery of stolen goods, and so forth.^{1/} If the state were to opt for the property owner's concept of security--consistent with private sector practice where peace officers are not employed as security personnel--the CSP could be operated for far less cost

^{1/}William Fairley and Michael Liechenstein, Improving Public Safety in Urban Apartment Dwellings..., R-655-NYC, (New York: The New York City Rand Institute, 1971) p. 31.

than at present. The existing mode of CSP operation heavily emphasizes law enforcement capability, the line staffing ratio being 73 percent police officers, 16 percent security officers (with peace officer power) and 11 percent security guards (without peace officer power).^{2/}

It cannot be denied that having a police officer on a post or patrol in lieu of a security guard will permit a wider range of individual response to a given threat. However, CSP's 1977/78 billing rates of \$19.25 per hour for a police officer versus \$9.60 per hour for a security guard would permit two guards to be posted for the cost of one officer, twice the actual surveillance for the same cost.^{3/}

Police Service Duplication

Peace officer power is necessary for apprehension when a criminal offense has occurred.^{4/} In addition it can be argued that a peace officer's presence may be a stronger deterrent to criminal conduct than a security guard's or a non-uniformed employee's. In any event, the potential threat of a criminal offense makes prudent the development of a police response capability. But does the state need police officers?

It appears that over a period of many years, there has evolved a duplicative and unnecessarily expensive law enforcement staffing policy within the CSP.

^{2/}In 1969/70 there were 70 police officers, 45 security officers (who functioned as "plant guards") and no security guard class. Depending upon the interpretation of "plant guard" duties, it can thus be said that the 1969/70 police-to-guard ratio was 1.6:1 while today's ranges from 2.8:1 to 8.1:1. See Chapter I, page 2.

^{3/}On a pure salary comparison (assuming top step pay) instead of a billing rate comparison, the ratio would be 1.87 guards to each officer instead of two to one.

^{4/}Notwithstanding the "citizen's arrest."

The Department has exercised its discretionary authority to extend administratively State Police jurisdiction to all state property "owned, leased, rented, controlled, used, or occupied" by any state department in most of the State's metropolitan areas.^{5/} The impact has been a unilateral pre-emption of the basic police services which local jurisdictions must, by law, provide "to all within [their] political confines."^{6/} The state, as is true with any property manager or employer, may supplement local police protection with its own security personnel on its own premises. The CSP, however, has not merely supplemented local police services on state property but has largely supplanted them.

In a recent news interview, the Chief of the CSP stated, "We receive great cooperation from other police agencies although some officers do not feel too hot about coming on state property."^{7/} The reticence of local officers to serve state facilities on a routine basis was confirmed in our interviews with local law enforcement personnel,^{8/} but a good reason was revealed for such reticence.

When asked about local police response to calls for service in areas with concurrent CSP/local jurisdiction, we received a strikingly uniform

^{5/}California Administrative Code, Title 2, Section 1201(c) and SAM Section 2625. The latter limits CSP to areas offering sufficient property concentrations to allow economic staff utilization.

^{6/}Fifty Ops Atty Gen 64 and 43 Ops Atty Gen 246.

^{7/}Chief William B. Skelton in "State Police Chief Heads Diversified Unit," The Sacramento Bee, February 14, 1978, p. B3.

^{8/}Interviews conducted during December 1977 with Deputy Chief Jerry Finney, Sacramento Police Department; Chief Fred Reese, Sacramento County Sheriff's Department; Deputy Chief Jeremiah Taylor, San Francisco Police Department; and Officer Stan Leavitt and Officer Lavin (by telephone), Los Angeles Police Department Public Affairs and Manuals and Orders Sections, respectively.

response. Local police acknowledge their concurrent jurisdiction responsibilities on state property but regard the CSP's presence and peace officer authority as a voluntary pre-emption of their need to respond to routine calls for service (emergency calls receive unhesitating dispatch). For non-emergency or routine calls for service from state facility occupants, informal CSP/local agreement causes such calls to be redirected to the CSP.^{9/} As a practical matter, the local police find that, except for prisoner transportation, booking and the more complex criminal investigations the CSP seldom requests their assistance.

Added to these findings concerning the availability of local service is the fact that local police exclusively serve state facilities in many parts of the state. The Los Angeles Police Department even serves the Museum of Science and Industry in Los Angeles, a facility at which the State's security personnel are not peace officers.^{10/}

The dispersed nature of state facility locations in metropolitan areas outside the Capital causes the State Police to travel over generally greater distances than the local police when dispatched on a call for service. Response times will obviously vary, but CSP strives for a 15 minute average response during the daytime shift.^{11/} Local police, on the other hand, have patrol units in all areas of their jurisdiction in sufficient concentration to permit very fast average response times for

^{9/}In no local jurisdiction did we find a formal policy on this point, and a need for call referral was specifically mentioned only by LAPD.

^{10/}See Chapter III, page 49.

^{11/}"State Police Policy Issue Report," September 20, 1976, cited in General Service's "Report on Service Requirements for the California State Police Division (unpublished), 1977.

high priority calls for service; for example: Sacramento, 6 minutes; San Francisco, 4 minutes; Los Angeles, 5-10 minutes.^{12/} Such local service capability further erodes the rationale for having state peace officers in a police role.

Related to the foregoing is the point that local police cannot be expected to enter state property on routine patrol to inspect facility security as do CSP members and employees. But however beneficial such close inspection may be, the CSP is not presently covering all pro rata properties on a regular basis.^{13/} As discussed earlier, by using security guards instead of police officers for such surveillance twice the staff could be fielded for roughly the same cost.

It has frequently been argued that the state should reimburse local governments for services provided to its tax-exempt properties. This report is not a forum for resolution of that historic conflict. We do note, however, that under existing law the state may not reimburse local government for such services, even through the expedient of user fees.^{14/} But this point has a bearing on the subject of state police jurisdiction in that the Department of General Services administratively determined that leased and rented facilities, on which local property taxes are

^{12/}Non-critical calls are dispatched and answered less quickly. For example, San Francisco P.D.'s lowest priority calls rate a 30 minute response with plans to extend that period to one hour. Sacramento P.D.'s response time in similar instances averages 19 minutes; Los Angeles', 25-30 minutes.

^{13/}Our field observations as well as interviews with CSP personnel in Sacramento, San Francisco and Los Angeles confirmed that not all facilities under pro rata coverage are being patrolled daily. The CSP usually provides daily surveillance only for properties experiencing frequent criminal activity or containing high risk commodities, e.g., weapons or drugs.

^{14/}Four Ops Atty Gen 222. The state can properly pay for local police services which are provided by contract and are in excess of the service levels provided to the jurisdiction as a whole (50 Ops Atty Gen 64).

paid, also must receive CSP coverage. Statewide, 47 percent of state office space is leased, and in Sacramento, Los Angeles and San Francisco the leased space ranges from 35 to 41 percent of total office space, with 39 percent being average.^{15/}

The matter of cost, of course, must be considered. For a local police officer to respond to a call on state property in lieu of a CSP officer, some intergovernmental cost shifting will occur. But local police coverage in most areas is already sufficiently concentrated relative to CSP coverage that it is entirely possible that the State's police matters could be covered without an adverse impact on local staffing.^{16/} In San Francisco, the CSP's patrol and contract beat peace officers total 22 positions versus 1100 SFPD police officers on patrol, 2 percent of the city's patrol force size. In 1976, the CSP's San Francisco force handled only 0.2 percent of that city's index crimes.^{17/} For Los Angeles, the 38 patrol and contract beat officers are the equivalent of 1.3 percent of LAPD's patrol force of 3,000 and, in 1976, handled 0.07 percent of that city's index crimes.^{18/} While we do not presume to endorse index crimes per officer as a precise staffing standard, we do believe that the contrast indicates a relative richness in CSP's peace officer staffing. Further, the data suggest that the CSP's police functions, as opposed to security functions, could be surrendered to local police for an overall taxpayer savings.

^{15/}California Department of General Services, Space Management Division, Inventory of State Occupied Space, November 11, 1977.

^{16/}Sacramento's unique situation is excepted and is discussed further on page 20.

^{17/}California Department of Justice, Uniform Crime Reports, 1976 and Department of General Services, Report on Service Requirements....See Table 1 for further detail.

^{18/}Ibid.

TABLE 1
INDEX CRIMES AND CLEARANCE RATES,* 1976

Jurisdiction	Crime Index Total	Violent Crime	Property Crime	Murder and non- negligent man- slaughter	Forcible Rape	Robbery	Aggra- vated Assault	Burglary breaking or entering	Larceny/ theft	Motor Vehicle Theft
Sacramento Police Department .percent cleared	28,523 18.2	2,799 52.6	25,724 14.4	52 94.2	192 40.6	1,187 52.9	1,368 52.4	9,091 11.5	14,070 16.8	2,563 11.4
San Francisco Police Department .percent cleared	77,283 10.3	10,756 22.0	66,527 8.4	130 49.2	619 31.8	6,628 13.4	3,379 36.1	21,992 7.0	34,349 10.0	10,186 5.7
Los Angeles Police Department .percent cleared	220,689 25.7	31,960 47.9	188,729 22.0	501 74.1	2,047 52.7	14,225 28.8	15,187 64.3	65,815 21.6	91,525 24.5	31,389 15.2
CALIFORNIA TOTALS .percent cleared	1,548,314 20.1	143,507 44.2	1404,807 17.6	2,214 73.5	9,552 46.8	59,132 28.1	72,609 56.0	465,758 16.5	800,980 18.5	138,069 16.6
STATE POLICE .percent cleared	2,136 11.4	227 55.5	1,909 6.1	5 20.0	4 50.0	49 42.9	169 60.4	420 13.1	1,369 3.4	120 12.5

SOURCES: Department of Justice, Uniform Crime Reports, 1976 and California State Police Division.

*CLEARANCE: "an offense is cleared or 'solved' for crime reporting purposes when at least one person is arrested, charged with the commission of the offense, and turned over to the court for prosecution or cited to juvenile authorities. In certain situations a clearance may be counted by 'exceptional' means when the police definitely know the identity of the offender, have enough information to support an arrest, and know the location of the offender but for some reason cannot take the offender into custody." Department of Justice, Criminal Justice Profile - 1976, p. 94.

The Capitol Area^{19/} presents an unique situation regarding CSP coverage. It has long been the Legislature's intent that the Capitol and Capitol Park receive State Police protection. There also are practical jurisdictional reasons for having personal protective services for the Governor and other constitutional officers and legislators vested in a force with statewide jurisdiction. The incidents of public demonstrations on the Capitol grounds are further cause for State Police readiness as directed by ACR 121/1967.^{20/} These precedents, when combined with the concentration of state government buildings within the Capitol Area, can justify CSP peace officer assignments on some beats. The same is not true for the Greater Sacramento Area, where the police coverage situation is analogous to that found in San Francisco and Los Angeles.^{21/}

Another situation where CSP peace officer, instead of security guard, assignment may be appropriate is that in which local law enforcement personnel are not readily available during emergencies. A less critical factor, but one which could contribute to the need for peace officer staffing, is that of multiple jurisdictions. The State Water Project is a facility which exhibits these characteristics.

Returning to the query made earlier: "Does the state need peace officers?" we have shown that in limited situations, the answer is yes.

^{19/}That area in the City of Sacramento bound by 5th, 17th, L and R Streets. Chapter 1108, Statutes of 1977.

^{20/}It is noted that ACR 121 did not direct the CSP to provide the exclusive coverage of such events; coordination with other police agencies was expected.

^{21/}The CSP patrol and contract police officers equal 8.8 percent of Sacramento PD's patrol force; the index crime rate is 1.6 percent of the city's.

But on most pro rata and contract assignments the CSP's use of State Police Officers and Security Officers reduces the State's surveillance capability and is an expensive duplication of readily available local services.

Risk Management

Risk management involves identification of risks, measurement--preferably by quantification--of their probable impact within a given time frame, and the assessment and selection of cost effective countermeasures to reduce the risks and/or the impact of their occurrence.^{22/} Given such a broad definition, the responsibility for risk management extends beyond the CSP and also rests with state agency managers who should identify and estimate the probable impact of risks and select the most cost effective of various strategies to affect the risks. The CSP provides assistance on physical security matters and is thus a partner in the risk management process.^{23/}

Risk management, particularly as it pertains to physical security, is in its infant stage in state government.^{24/} The employee and property protection programs, staffed by seven CSP officers, constitute the state's most systematic approach to security outside the area of directly reimbursed contract security services. Although the employee

^{22/}C. Arthur Williams, Jr. and Richard M. Heins, Risk Management and Insurance, (New York: McGraw-Hill, 1964), p. 11-15.

^{23/}General Services' Insurance Office also offers "risk management consulting," but most of its services are related to liability risks and underwriting instead of property risks.

^{24/}Data processing security is more advanced, particularly at Teale Data Center. The State Data Processing Management Office will conduct a security audit of EDP facilities this year.

protection program's emphasis is on planning to cope with emergency situations, it exposes state employees to some of the problems associated with criminal activity in state facilities.^{25/}

The nascent property protection program is more directly focused upon the safeguarding of state property. Current program activity concerns the collection of basic data about the security of state facilities.^{26/} Examples of information being compiled include: construction characteristics, the presence of alarm devices, key control, public access, area crime rates and proposed security measures. This inventory process, which began in Summer 1977, is scheduled to be completed in 1978, and annual updates will be required. It is the CSP's intent to comment on the adequacy of each facility's security and to inspect for implementation of security recommendations, but no means exist to insure compliance.

Less routinized is the security survey service offered by the CSP. This reimbursed service is provided in response to client-identified security needs and frequently culminates in the initiation of a CSP contract to fill a requirement for security personnel. The contract-oriented security surveys eventually may become routinely generated through the property protection program.

Beyond these several activities dealing with security planning and response, the CSP has attempted to gauge its level of pro rata services according to employee population and parking facility size. But such quantification, while providing a staffing measure, has not dealt with issues of service level as discussed in the preceding section of this chapter.

^{25/}Employee training in first aid/cardiopulmonary resuscitation also is conducted as part of this program.

^{26/}For example, the CSP does not know which state buildings have alarm systems and may not have had a need for such information previously.

Evaluation of the overall impact of these new risk management activities may be premature, but we have several observations concerning the direction the CSP's security planning functions should take within the context of more comprehensive risk management.

We have observed several instances where the CSP and its prospective clients have disagreed about the appropriateness of recommended security levels. These disagreements have fallen into both the categories of the suggested service level being "too rich" and "too lean." This problem is only a symptom of the underlying lack of cost/benefit data available in the typical security survey.

The CSP's security surveys ordinarily are prepared after the client has identified the risks to be guarded against. The heart of the survey lies in its presentation of "minimum security standards" versus the current practices of the client. The standards are usually an array of desirable security features, as illustrated by this excerpt from a security survey:

<u>Item</u>	<u>Standard</u>
Key Control	1. Keys to sensitive areas controlled? 2. Sensitive areas safeguarded after hours? 3. High risk items safeguarded?
Alarms	1. Sensitive areas protected with intrusion detection or distress alarms systems? 2. Alarms terminate at State police annunciator panel? 3. Adequate response to intrusions?

^{27/}Other items typically surveyed are "fire protection," "public service" (public contact) and "emergency planning."

Police Security

1. State Police patrolled?
2. State Police response adequate?
3. State Police coordination [with local police]?

While the security survey will permit the client agency to gauge its level of compliance with the "standards," the relationship of these or other levels of service to the impact on risk is not provided. In other words, the survey does not lend itself to shopping for the most cost effective level of service.

We have sought a methodology for the CSP to apply to its security surveys in an attempt to develop clearer cost effectiveness data. A RAND researcher has developed a technique for systematic cost effectiveness review of security measures which has the benefit of realistically evaluating this largely subjective area.^{28/} Conceptually, the technique^{29/} relies upon the weighted products of values assigned to threat categories, the various desired security characteristics which might offset the threats, and the alternative ways of providing the desired security characteristics. Thus derived, the weighted product gives a numerical value to the effectiveness (ranging from zero to 100 percent) for each of the security alternatives considered. Having costs for the security alternatives, the cost effectiveness of each alternative can be readily calculated. We have included an excerpt from the RAND paper as an appendix to describe the process in detail.

^{28/}Michael I. Liechtenstein, Reducing Crime in Apartment Dwellings: A Methodology for Comparing Security Alternatives, P-4656, (New York: New York City Rand Institute, 1971). See the Selected Bibliography for other references reviewed.

^{29/}Data such as those displayed in Table 1 can suggest the relative threat of various crimes.

The foregoing methodology relies upon subjective assessments plowed into a mathematical formula and could be criticized for "giving the illusion of precision to guesses." But the method would be an improvement over the present system where such "guesses" are not clearly displayed. Further, Delphi techniques could be used to smooth biases from the first-cut estimates of effectiveness^{30/} and empirical data could eventually reinforce the procedure.

It should be pointed out that the Rand technique carries the implicit assumption that even 100 percent security effectiveness would not be worth the investment if expected losses do not exceed expected security costs.

We realize that adding a significant degree of sophistication to the economic side of today's security analysis would take time. For certain property crimes, however, a surrogate for original cost effectiveness analysis exists in commercial insurance rates. For example, to insure \$10,000 worth of a moderately high risk commodity against burglary in Sacramento, the insurance premium would be approximately \$650.^{31/} But pre-^{32/}mium discounts are allowed for various security measures as shown in Table 2.

Table 1 (pg. 19) shows that burglary and theft are the state government's two primary property crime worries. Eliminate those and the number of index crimes on state property in 1976 falls to 347 statewide. Total reported property losses were \$1.8 million.^{33/}

^{30/}The rapid advance of passive security technology would make industry input a valuable resource in this regard.

^{31/}Telephone conversation with Mr. Dick Neese, Underwriting Manager, Aetna Life and Casualty, January 27, 1978.

^{32/}Data furnished by Mr. Claude J. Hubbard, Staff Supervisor, Government and Industry Relations, Insurance Services Office, San Francisco, February 9, 1978.

^{33/}The CSP speculates that as much as 80 percent of the State's property crimes may go unreported. It is a virtual certainty that there is unreported crime, but the extent can only be guessed.

TABLE 2
BURGLARY INSURANCE PREMIUM DISCOUNTS
FOR VARIOUS SECURITY MEASURES
(MERCANTILE OPEN STOCK TABLES)

	Premium Discount
● Watchmen. For each watchman up to three. On duty during all non-business hours*	
- Making hourly rounds and calls to a central station or police station	30%
- Hourly rounds but not calling an outside station	15%
- Rounds not recorded, calls not made	10%
*If daytime non-business hours not covered, 1/2 the regular discount	
● Alarms. Varies by building floor, extent of coverage, whether or not the alarm is connected to a U.L. certificated central station (also whether such a station has keys to the premises).	5-70%*
● Glazing Material. For burglary resisting glazing material	10%
● 24-hour Operation. For facilities regularly open for business at all times.	50%

*Local alarm discounts vary from 5 to 25 percent; central stations (without keys to premises), 15 to 55 percent; and central station (with keys to premises), 20 to 75 percent.

The implicit effectiveness of advanced alarm systems in deterring burglaries is well dramatized in Table 2. The state, however, has no strategy with regard to alarmed properties. Some facilities have audible, local alarms while others have silent systems connected to an Underwriters Laboratories certificated central station or the CSP. With only \$1.8 million in annual reported property losses, the state could be at its economic limit regarding the payoff of alarm systems, but in all likelihood the CSP's property protection program will reveal some facilities where such protection can still be warranted. Evaluation of alarm and other security systems on a routine basis has only been done by the CSP since last September, so improvement in the State's disjointed alarm strategy should be expected.^{34/}

The high rate of larceny/theft on state property (72 percent of property crime versus 57 percent statewide) could be an indication of high employee theft. Considering the CSP's 3.4 percent clearance rate for such crimes, a strategy for better access control to state facilities--or portions thereof--might be in order. The CSP is on record in support of electronic access control devices in lieu of more expensive guards,^{35/} and we support this approach. A striking example of the economy of electronic access control is found at three Air Resources Board facilities. One \$15,000 electronic "card-key" system depreciated over a multi-year life span will control access to three buildings; security guards performing the equivalent 24-hour, seven day per week coverage would have cost the ARB over \$250,000 per year.^{36/}

^{34/}SAM Sections 1403.9 and 1404.

^{35/}California Department of General Services, California State Police Division 1978-79 Departmental Budget Hearing, June 9, 1977, p. 11.

^{36/}The CSP reviewed and approved this card-key installation. We are showing these costs only for comparative purposes, and it should not be inferred that the CSP ever proposed using guards in this situation.

Today's card-key systems can range in cost from about \$1,000 for one door, local switch control, to nearly half a million dollars for a computer-controlled system covering up to 256 doors.^{37/} The electronic coding of some systems precludes the use of exposed card readers. Because of the coding capabilities of the magnetic cards combined with the computer control system, it is possible for some systems to offer a printed record of individuals who have entered and left a given area and their time in the area.^{38/} Unauthorized entry attempts can be detected at the control center and silent alarm capability enables employees to signal entries being made under duress. If it is determined that physical viewing is absolutely necessary in some high risk areas, closed circuit TV monitoring can service several access points using only one person instead of many guards; the CSP currently uses several such systems.

A risk management approach to the CSP's strategies could lead to lowered program costs. We have already questioned the use of peace officer personnel in many situations where local peace officers are available to serve the State's police (as opposed to security) needs. Coupling local service capabilities with the CSP's inability to physically patrol all state facilities, we must also question the cost-effectiveness of thinly spread patrols.

The insurance industry's burglary premium discounts shown in Table 2 are not represented to be precise indicators of the statistical

^{37/}"Doors" is a misnomer. The systems can control doors, parking lot gates, turnstiles, gasoline pumps and even office copiers.

^{38/}Some commercial firms reportedly are using this feature for payroll preparation.

impact of the various countermeasures against burglaries. They are, however, the marketplace's current valuation and should thus be considered in that economic context.

If the state has statistically expected property crime losses ranging from \$1.8 million to \$9.0 million (see footnote 33), the insurance premium to cover property losses, disregarding the insurer's profit and administrative costs, should approach those expected loss amounts. Table 2, then, is saying that the economic worth of random guard patrols applied to property loss insurance, assuming for now that all property losses are burglary losses,^{39/} is $(.10 \times \$1,800,000 \text{ to } .10 \times \$9,000,000)$ \$180,000 to \$900,000 per year; if local burglar alarms, \$90,000 to \$450,000 per year; if the most effective silent alarm systems, \$1.3 million to \$6.3 million per year; and so forth. In contrast to the theoretical economic worth of random patrols shown above, the salary costs alone for such patrols approximate \$880,000 per year.^{40/}

There is an obvious analytical flaw in attempting to use the State's actual property losses as the equivalent of expected loss, and that is the circularity of the calculation. If the state enjoyed a period of no losses, this approach would yield a result of zero benefit for any countermeasures. Therefore, agency managers' appraisals of expected risk are an important first step in the entire risk management process.

^{39/}Actually, burglary, vandalism and grand theft each amount to about 20 percent of the total property losses.

^{40/}The CSP now employs about 60 officers and guards for property protection-oriented pro rata patrol (weekends, swing and graveyard shifts) in Sacramento, Oakland, Los Angeles and San Francisco. Department of General Services, Report on Service Requirements.

It is sometimes said that random patrols are effective in inhibiting criminal activity. This hypothesis is at least seriously questioned by a Police Foundation study which concluded that levels of patrol activity did not appear "to affect crime, service delivery and citizen feelings of security in ways that the public and the police often assume they do."^{41/} It is plausible, then, that the CSP could reduce its swing and graveyard shift security staffing on pro rata beats to provide only alarm and access control monitoring with one person available to respond in a property manager capacity to alarm conditions with the local police.^{42/} Depending upon the level of sophistication of the CSP annunciator equipment, such a security approach, again according to Table 2, may be more effective than the State's present practices.

Personal Service

Before leaving the subject of organizational role and cost effectiveness, the personal side of the CSP's service deserves mention. Earlier

^{41/}George L. Kelling, et al, The Kansas City Preventive Patrol Experiment, A Summary Report, (Washington, D.C., The Police Foundation, 1974) p. 3. The report expanded this point to say "...[T]he experimental conditions had no significant effect on residence and non-residence burglaries, auto thefts, larcenies involving auto accessories, robberies, or vandalism - crimes traditionally considered to be deterable through preventive patrol." The experimental conditions involved five normal - for Kansas City - patrol frequency control beats, five "reactive" beats where routine preventive patrol was completely eliminated but where calls for service were responded to, and five "proactive" beats staffed at 2-3 times the "normal" level. The experimental conditions were held for one full year.

^{42/}Without a large concentration of state facilities, contracting for this service would probably be economical.

in this chapter, we discussed police response time to reports of criminal activity. We were reminded in our field interviews that CSP officers will personally respond to and make reports of all crimes on state property. In addition to evidence gathering, such a response policy^{43/} places a high value upon the psychological value to the crime victim of police response and assures a high degree of uniformity in the preparation of crime reports.^{44/} Although we can offer no experimental proof of such an outcome, it seems reasonable to believe that the CSP's 100 percent response policy would encourage crime reporting.

The impact of the policy of universal response on the solution of crimes is less certain. Some "cold" crimes (e.g., vandalism or thefts which involve small losses and which occurred at an unknown time) may have such an insignificant chance of solution that the formality of a police response is wasteful.^{45/} For example, the Sacramento Police Department does not dispatch on 45 percent of its calls for service and takes those reports that may be necessary among such incidents by telephone.

^{43/}The existence of such a psychological value makes sense not only from an intuitive standpoint; it was verified through victimization surveys conducted during the aforementioned Kansas City patrol experiment. Tony Pate, et al, Police Response Time, Its Determinants and Effects, (Washington D.C., the Police Foundation, 1976) p. 49.

^{44/}Compilation of crime reports by CSP officers probably assures uniform crime reporting for state properties. SAM Section 2625, however, permits state managers to report crimes to the CSP following their report to local police in some areas. Such manager reporting is in compliance with the Department of Finance's fraud and loss reporting requirements found in SAM Sections 0601 and 8657.

^{45/}Response may not be wasteful from a public relations standpoint. But if the public is informed of the reasons for various response priorities, slower response or nonresponse in some cases, may gain acceptance.

Except for the "larceny/theft" column of Table 1, that display does not show any classes of crimes which do not usually receive a personal police officer response in all jurisdictions. Acknowledging the CSP's statement that they will respond to all thefts whereas other police agencies will not, the respective clearance rates do not show that such a policy holds tangible payoff.

A popular service provided by the CSP was recently highlighted in a state employee newsletter:^{46/}

For those of you working late hours downtown and making an "after dark" walk to your car, call the State Police, 445-2895, and they will send an escort to accompany you to your car. They will even "shine some light" to check the inside of your auto.

After-hours security will continue to be a subject of importance to employees and probably will become a point of negotiation under collective bargaining. State Police escorts are one means of furnishing such security, but the CSP is not staffed adequately to provide timely or universal response to all requests for escort service. Alternative strategies could include: encouraging employees to park adjacent to their office buildings after normal working hours, allowing state-paid transit or taxi fares in lieu of escorts, reimbursing employees for parking in attended commercial lots, providing an attended state-owned lot, or using non-police officer escorts. Measures such as these should not replace the practice of common sense rules of personal responsibility on the part of individual employees. It should be expected that employees would be careful to lock their cars, check car interiors before getting in,

^{46/}"Working Late?", W.L.C. [Womens' Liaison Council, Department of Corrections] Circular, February 1978, p. 1.

park in well-lighted and well-traveled areas, and use a "buddy system" whenever possible. The practice of providing security services to employees in the private sector and in other government jurisdictions is mixed, so the form of after-dark security measures taken on behalf of state employees remains negotiable.

Recommendations

In this chapter we have analyzed some of the underlying assumptions and mandates which guide today's operational practices in the California State Police Division. Areas of special concern which we have noted are:

- Concurrent state/local jurisdiction
- Lack of explicit data concerning risk magnitude versus the cost effectiveness of alternative ways of combating risks.

Our predominant finding has been that state government employs a high degree of police officer response flexibility to the economic detriment of "plant security" as that term is understood in the private sector. Local law enforcement capability is largely supplanted on state property, although state property could be less expensively policed by local authorities. We also pointed out that in a few locations, e.g., the Capitol Area, state peace officer flexibility may be a desirable feature vis-a-vis local response.

Regarding risk management, we observed that the CSP has intensified its efforts to assist state government with its security needs analyses. This encouraging activity could be strengthened further by the inclusion of economic and effectiveness data in security

surveys. Decision makers should be provided an appraisal of the estimated annual economic costs of the risks being considered and given an array of countermeasures with their costs and relative effectiveness from which to choose a course of action.

These findings lead to the following recommendations regarding the role and staffing of the California State Police Division:

- Protection for the Governor, and other constitutional officers and legislators should remain a CSP responsibility. Only a state-level security organization could provide such protection on a continuous basis.
- Capitol and Capitol Area protection and police services should remain a CSP responsibility, acknowledging the concurrent jurisdiction of the Sacramento Police Department. Clear and historic legislative intent and state practice, the symbolic attraction of the Capitol for public demonstrations and the concentrated nature of state facilities combine to justify this CSP function.^{47/}
- State Police services in other parts of the state should be sharply reduced because of the capability of local law enforcement agencies to provide those services. The phase-out of police services could be staged to include:
 - Pro rata patrol removal from outlying areas
 - Restraint from expansion into new areas of pro rata coverage
 - Eventual removal of peace officers from central city pro rata beats
 - Screening all contract peace officer assignments to determine the ability of local law enforcement agencies to provide police services

^{47/}The specialized service of explosive ordinance disposal (EOD) is available from local police and military installations in the Sacramento area as well as from CSP officers. This duplicated service may be justified if the response times of the other agencies to bomb threats on state property is significantly slower than CSP response.

There are approximately 87 police officer and security officer positions which could be affected by this reduction.^{48/} (This figure excludes: sergeants and above, police officer dispatchers and all Sacramento and California Water Project peace officers.)

- Facility security services over and above normal local law enforcement capability should be provided by the CSP as justified by security survey. This role is comparable to facility security as provided in the private sector. We would expect many of the pro rata and contract peace officer positions to be reclassified as security guard positions in conjunction with this realignment. Dispatch/monitor capability provided for facility security may be economically contracted with "central stations" in some areas and on some shifts.
- The employee and property protection programs may need additional staff--transferred from areas of program reduction--to strengthen the CSP's security analysis capability. These programs are of statewide application and could be more equitably funded from the General Fund than from pro rata billings.

^{48/}Staffing data by geographic location which were given us by the CSP showed the following peace officer positions which could be affected: San Francisco, 21; Oakland, 8; Redding, 2; Stockton, 3; Fresno, 5; Los Angeles, 38; San Diego, 4; Santa Ana, 2; and San Bernardino, 4.

CHAPTER III
SECURITY SERVICES--INTERAGENCY DUPLICATION

The California State Police Division has identified a number of state agencies providing their own police and security services.^{1/} This chapter will address the extent of duplication of services by these agencies, and whether consolidations into CSP are warranted.

For one group of agencies identified by CSP, the issue is duplication of services available from CSP by contract, e.g., a fixed post security guard. For the other group of agencies, the issue is expansion of the CSP organization to incorporate the law enforcement element of a variety of state programs, e.g., wildlife protection, or state park law enforcement.

Where it is clear that agency employees are performing the same tasks as CSP employees, the associated costs will be compared. Cost data will be limited to the number of positions necessary to staff a 40-hour post.^{2/} We will not include overhead costs which we consider fixed costs.^{3/}

^{1/}Employment Development Department, Departments of Justice, Health, Fish and Game, Parks and Recreation, the California Exposition and State Fair, Museum of Science and Industry, Veterans' Home at Yountville, State University, and University of California.

^{2/}Department of General Services, Administrative Services Division, Program Analysis Section, "Introduction," Report of Service Requirements for the California State Police Division, September 1977.

^{3/}Department of Finance, Program Evaluation Unit, Centralized vs. Decentralized Services, Phase I, "Treatment of Overhead Expense," No. D77-40, August 1977, p. 7.

Overhead costs are not likely to increase for either CSP or line agencies as a result of the small marginal increases in staffing which are at issue. Therefore, we believe that the only costs necessary to complete the cost analyses from a government-wide perspective are the salary and staff benefit costs associated with the posts in question.

Where there is no significant cost advantage of a line agency over CSP for contract services, our recommendations will be guided by state statute, i.e., Government Code Section 14613, which makes the CSP responsible for police and security services to state buildings and occupants. We have the following interpretation of Section 14613 from counsel (Mr. John Brakke, General Services Legal Office): The construction of Section 14613 and the duties vested in General Services by Government Code Section 14600 (which specifies police protection as a duty) make implicit the impropriety of any state agency hiring its own security personnel without the express permission of the California State Police Division or express statutory authority to hire security personnel. With the CSP's ability to delegate security service authority, it appears that if a line agency could demonstrate a clear economic advantage to the state in providing its own security, Section 14613 could allow us to endorse such delegation. In a situation where a line agency is not clearly the more economical service provider, we believe that the uniformity of security service available from the CSP is of sufficient value from a qualitative standpoint to make delegation of security tasks inappropriate.

Each agency will be dealt with separately. The format will be to describe the job classifications used and the tasks being performed. The pros and cons of apparent issues will be discussed. Our findings in Chapter II will also be considered in making recommendations.

Employment Development Department

The Employment Development Department (EDD) employs two security guards at its headquarters in Sacramento. This job classification-- security guard--is used also by CSP. The guards staff a fixed post in the electronic data processing equipment area. These two guards cover a single post from 7 a.m. to 5 p.m. for five days a week. Their shifts are staggered so that each guard works an eight-hour day. Occasionally, a clerk is used to fill in for the guards during breaks. The guards have been used for limited parking lot patrols during shift changes.

Before EDD hired its own security guards, CSP prepared a security survey, at EDD's request. The recommendation from the CSP survey was for EDD to contract with CSP for 1.4 security guards. A request for funding was made by CSP. This request was not approved by DGS management. A request was submitted by EDD for two security guard positions and this request was approved.

The duties of these guards are limited to monitoring a closed circuit television which is part of a Mardix "man-trap" system. This system is used to control who enters the computer area. The entry process is: a person steps into a small, glassed-in booth with two doors-- one allows access to the computer area, the other allows access to a "neutral" or noncomputer area. The door leading to the computer area remains locked until the person desiring entry places an identification card (which includes his or her photo) on a device which transmits the

card image to a television screen. An image of the person in the booth is transmitted to the same television screen. The guard verifies that the identification card has been authorized to the person in the booth. The guard then presses a button which unlocks the door to the computer area and, simultaneously, locks the door to the "neutral" area.

The management at EDD has specified employee identification verification as their primary security service need. The presence of a uniformed or armed officer is not a defined need for adequate security at this facility. The guards and persons desiring to enter the computer area are never in the presence of each other during this entry process. As a result, a person seeking access to the area is unaware who is controlling the entry process, i.e., whether there is an armed guard on duty or a clerk filling in during breaks. The considerations for staffing the Mardix system on-site at EDD did not include a need for the "presence" of a uniformed person as a deterrent to crime.

During the hours of 5 p.m. to 7 a.m. on weekdays, and 24-hours on weekends, the monitoring of EDD's Mardix system is performed by CSP dispatchers and police officers at Sacramento area dispatch center in the Capitol. This service is considered by CSP to be a "pro rata" service and EDD is not billed separately for the service. The fact that CSP provides the same service as EDD guards makes this a clear case in which CSP services are being duplicated, and there is no statutory authority for EDD to do so.

The difference between the CSP and EDD staffing requests (0.6 staff years) is a result of CSP's staff utilization. The State Police are able to staff a 10-hour, five day, post with 1.4 staff years through efficiencies available to a centralized service provider.

The failure of DGS management to approve the 1.4 staff years requested by CSP to staff the contract with EDD may have been a function of the absence of systematically derived data on the cost effectiveness of the proposed service. In Chapter II of this study, we have suggested some ways to make the security surveys more useful to management, and SAM Section 4845 et. seq., contains specific guidance regarding data processing security.

The fact that EDD's Mardix system is tied into the CSP Sacramento dispatch center raises serious questions about the necessity for security guards (or clerical staff on a temporary basis) on-site at EDD. If the EDD system were monitored all the time by CSP, the worst consequence we can foresee is some delay in entry; this delay would be the result of CSP staff at the dispatch center being momentarily unavailable to EDD while they respond to dispatch calls. However, we doubt this wait would be sufficient to warrant the cost of two full-time staff plus relief support.

If the delay did become counterproductive, one alternative to staffing on-site at EDD is a "card key" system. Such a system would continue to meet the security needs defined by EDD management, i.e., employee identification verification and controlled access, at a lower cost.

In the event that EDD redefines its service needs to include on-site security staff, the least costly alternative to EDD and state government as a whole, should be chosen. For a single 50-hour post assignment, CSP is the least costly alternative.

Recommendations

1. The two security guard positions at EDD should be eliminated, and the CSP should monitor the Mardix (access control) system at all times, from the Capitol.

If remote monitoring is not satisfactory, consideration should be given to passive equipment for employee identification and access control.

2. If on-site security guards at EDD can be justified by risk analysis in accordance with SAM Section 4845 et. seq., the CSP should provide the service.

Department of Justice

In 1974, the Department of Justice (DOJ) requested that the CSP perform a security survey at DOJ's 33rd and C Streets, Sacramento, facility. This facility is the single repository for criminal history and fingerprint records statewide. The Law Enforcement Consolidated Data Center is also at this facility and is the central terminal for all statewide information systems used by law enforcement, e.g., stolen property, stolen vehicles, wants and warrants, and stolen firearms. There is a crime laboratory on-site which supports state and local criminal investigations. Peace officers from law enforcement agencies throughout the State go to this facility as a routine part of their work. In addition, the Criminal Identification and Information Investigators (CI&I) are located in this building and they are peace officers.^{4/}

^{4/}Penal Code Section 11052.

The facility is located in a residential area which is bounded by a railroad levee. It was originally built and used as a can-making factory. There are 650 parking spaces around the building for use by the public, DOJ employees, and law enforcement agencies.

The public visits this facility to be fingerprinted, to request a search of the criminal history records for background clearances, or to see their own criminal history records. School children are given tours of the building by DOJ employees (not the security officers) who volunteer and are trained to guide the tours. Sales staff from private vendors seeking to do business with DOJ also visit this facility.

The security survey prepared by CSP recommended that 24-hour, seven day, coverage be staffed as follows:

Police officers - 2nd watch, 5 days a week	2.4 PY
Security officers - 1st watch, 7 days a week	3.2 PY
2nd watch, weekends and holidays	1.2
3rd watch, 7 days a week	3.2
	10.0 PY
5 percent overtime anticipated	0.5 PY

The proposal from CSP was not acceptable to DOJ for a number of reasons. First, the CSP would not provide public information at the front entrance of the facility. This duty is considered by DOJ to be important for their image as a service organization. Second, the CSP staff assigned to the DOJ facility would be rotated to a new assignment every three months. This staff rotation is considered by DOJ to be counterproductive to the officers' learning about the various DOJ programs and becoming familiar with the DOJ staff. Third, the CSP would be in control of the security operation at the DOJ facility. The Department of Justice prefers to have control over their own facility. Fourth, the image of CSP staff is

that of police or law enforcement, in contrast to DOJ's preference for a service provider image. Finally, the cost of CSP security officers and police officers^{5/} was higher than DOJ thought appropriate, in view of the CSP service limitations.

As a result of these differences in definition of service need and costs, DOJ hired their own security staff. The civil service classifications used by DOJ are Security Officer I and II. For this fiscal year, there are 10 Security Officer I's, and one Security Officer II.^{6/} These classifications are "used primarily in a maximum security hospital of Department of Health.... In other institutions, incumbents perform basic security functions and related duties under the supervision of school or institution personnel. Employees in this class are primarily responsible for custody and security and are not directly engaged in the program of treatment and rehabilitation of the resident population."^{7/} The Security Officer II is the first supervisory level of the series.

Although the alternative chosen by DOJ was the least costly at the time, there is no statutory authority for DOJ to maintain their own special security services.

^{5/}Concerning the cost issue--at the time of CSP's survey of DOJ, the classification "security guard" was not in use by CSP. This classification would probably not have been used by CSP in their staffing recommendations; however, had the classification been available its use might have been suggested during the review and approval process. In April 1975, CSP began hiring staff using the security guard classification.

^{6/}Salaries for FY 76-77: Security Officer I - \$1,006 to \$1,206, Security Officer II - \$1,100 to \$1,323.

^{7/}California State Personnel Board, Specification for Security Officer I, Schematic Code VC 75, Class Code 1944, (Sacramento: California State Personnel Board, revised 1972), p. 1.

These security staff at DOJ are not armed, nor are they peace officers. Their training is a one-week orientation to DOJ programs and continuous on-the-job training. When space allows, they attend DOJ's Advanced Training Center course in arrest powers and use of firearms (Penal Code Section 832). Their duties are to monitor the closed circuit television coverage of the building entrances, parking lot, and interior; to control door locks at front and back entrances, admitting in employees with badges and visitors with escorts; to provide information to the public concerning DOJ programs; to train DOJ employees in cardiopulmonary resuscitation (CPR), administer first aid and CPR; and to patrol the interior and exterior of the building. These eleven staff cover two 24-hour daily posts (back entrance and roving patrol), and one 11.5 hour daily post at the front entrance.

Additional security measures are taken for the data center in the form of a man-trap device; however, this is monitored and controlled by computer operations staff.

The DOJ security staff does not supplant the services every state agency receives from CSP as a result of the prorata charges, e.g., issuing parking citations, writing crime reports, and responding to emergency calls, but is in addition to it.

We will conclude this section with an evaluation of the types of services CSP and DOJ have defined for the 33rd and C Streets facility. There are three areas of concern about service: civil service class, length of assignment, and DOJ's image as supported by the security staff.

We believe that the tasks required of security officers at DOJ can be performed by nonpeace officer personnel. There are indigenous

resources at the DOJ facility, i.e., CI&I investigators and police from agencies around the State, which we believe eliminate the need for a person with peace officer status being assigned a fixed post. In addition, CSP will respond to calls for service. The request by DOJ that security staff not be armed or have peace officer powers seems appropriate. The absence of the peace officer responsibilities significantly affects the content of the job and the skills required to perform it and the classification used should reflect this.

It appears to us that security officers at DOJ are performing tasks similar to the tasks performed by CSP security guards, i.e., "prevents the admittance to the premises of unauthorized persons, prevents damage to state property and enforces various regulations."^{8/} The security guards are paid \$246 a month less than the Security Officer I.^{9/}

The cost difference and the similarity in duties between the Security Guard class and Security Officer class used at DOJ suggest that the Security Guard classification is appropriate for use at the DOJ facility. The CSP should reevaluate their security proposal to DOJ, noting the tasks performed, the presence of peace officer personnel continuously at the facility, and the availability of rapid local police response.^{10/}

^{8/}Ibid., Specification for Security Guard, Schematic Code DB50, Class Code 1985, (Sacramento: California State Personnel Board, revised 1970), p.1.

^{9/}Salary for FY 76-77 for Security Guard: \$740-844 monthly.

^{10/}In interviews, DOJ staff noted that local police response time to the facility is 15 minutes.

The Department of Justice questions whether CSP could adequately serve DOJ's needs to have staff familiar with DOJ programs and staff if every three months new staff were assigned. It is CSP's policy to rotate staff to new assignments quarterly in order to increase the flexibility of the CSP staff pool and to enhance staff alertness.^{11/} Particularly in the case of fixed post assignments, the limited physical area and relatively routine demands require rotation to enhance alertness. It is conceded that new security staff would need a brief period to become familiar with the facility. But we cannot foresee any substantial breakdown in the ability to verify identification, direct visitors, locate emergency exits and fire alarms, etc., due to a quarterly rotation policy. Further, we agree with the CSP's position that security staff rotation can sharpen the performance of repetitive tasks.

The Department of Justice has expressed a desire to project a "service," as opposed to an "enforcement," image and to have this image supported by the security staff. The Department of Justice is, however, a law enforcement agency; it is this status as an enforcement agency which allows them to limit their security service needs to nonpeace officer personnel.

Consistent with Chapter II of this study, the DOJ and the CSP should reassess the security service requirements of the back entrance to the DOJ facility. An electronic access control system would accommodate DOJ employees at a lower cost than security staff, while all non-DOJ users of the facility could be screened at the front entrance by security staff or escorted through the rear entrance. Although the department

^{11/}This policy of periodic rotation is not industrywide, e.g., the Sacramento Police Department allows its officers to choose the assignments they want for a year.

will be vacating the leased 33rd and C Streets facility within the next two years, the hardware costs of a transportable access control system are low enough to warrant the conversion. As an example, a transportable "man-trap" system costs \$23,000 to \$25,000 installed (or can be leased for under \$400 per month plus a \$8,000 to \$10,000 installation cost). The salary cost alone for the staffed post is about \$67,000 per year.

Recommendations

1. Security staffing should be reduced by the number of staff necessary to physically control the DOJ employees' entrance, i.e., 4.8 PY. Passive equipment should be used to monitor this entrance.
2. As the least costly alternative to state government as a whole, and in compliance with Government Code Section 14613, the CSP should staff the DOJ security posts with a class equivalent to the one appropriate for use at DOJ, i.e., Security Guard.

California Museum of Science and Industry

The California Museum of Science and Industry (CMSI) is one of the public attractions on a 104-acre state-owned park in south central Los Angeles. There are 26 acres of parking area. The State leases land to the Los Angeles city-county Coliseum Commission which operates the Coliseum and Sports Arena. There are approximately 3.5 million visitors a year to the four museum buildings, and another 3.5 million people attending sports and recreational events in the park.

There is a Los Angeles Police Department (LAPD) precinct office two blocks from the park, and the park is included in the LAPD motor patrol of the precinct area. The police department responds to calls for service in 2 to 15 minutes.

The State employs a staff^{12/} of 27 security guards and officers, and night watchmen to patrol the park area and guard the museum contents. During the day shift, there are 8 security guards and officers on duty. For the swing and graveyard shifts, there are 3 to 4 guards and watchmen on duty. The guards are assigned inside the museums to protect the exhibits and to assist the public. The guards inside are uniformed and unarmed. The security officers patrol, by foot or motor vehicle, the park grounds. These officers do not have peace officer status; however, they are uniformed and armed.^{13/} Arrests by the CMSI staff are "citizens arrests."

The Museum security staff issues parking citations and collects the parking meter monies. During special events at the Coliseum and Sports Arena, CMSI personnel patrol and direct the parking lot traffic. Attendance at these events is between 30,000 and 80,000. The Museum staff at these events are off-duty from CMSI, and the duty is not considered part of their 40-hour week. As a result, straight time instead of overtime rates are paid to staff for working at the sporting events.

Until 1967, CSP had a contract to provide services to CMSI. At that time, the CSP service charges were considered too high and an alternative was sought. Museum custodial staff were given the opportunity

^{12/}As of December, 1977: 20-Museum Security Guards, 3-Supervising Museum Security Guards, 3-Night Watchmen, and 1-Chief Museum Security Officer.
^{13/}Officers are trained by Los Angeles Sheriffs Office in use of firearms, in compliance with Penal Code Section 832.

to move into security services at a cost lower than CSP's cost. However, there is no statutory authority for the Museum to employ its own security staff. Contributing to the cost difference is the fact that the security guard classification was not used by CSP until 1975. As a result, CSP had no comparable class available for duty inside the Museum. The staff which CSP could provide--security and police officers--have peace officer status, which the Museum does not require.

The Museum has defined the type of protection for visitors and contents of the grounds as security services. Considering the closeness of the LAPD precinct to the Museum and their frequent patrols, there are adequate enforcement services available. Peace officers at fixed points at the Museum would constitute a duplication of local services.

The Museum is staffing 14-16, 8 hour, 7 day posts with 27 staff, including a chief. The staffing standard for CMSI is 1.92 to 1.68 PY for one 8-hour post 7 days a week; CSP's standard is 1.6 PY. The cost difference between the two is not substantial; however, CSP can provide the same service for slightly less cost to state government as a whole. Our evaluation, however, did not include an assessment of the need for the current number of posts. Such a review is planned.

Recommendation

The CMSI should contract with the CSP to staff the appropriate number of posts, using non-peace officer personnel. Also, parking control staffing for Coliseum and Sports Arena events should be provided by CSP at straight-time rates. If the CSP cannot meet these two conditions, the service should continue to be provided by CMSI.

California Exposition and Fair

There are two types of service needs at California Exposition and Fair (Cal Expo): police and security service during the annual run of the California State Fair, and "interim" police and security services during the rest of the year when the grounds are used for special events, e.g., circuses and boat, livestock and art shows.

There are statutes allowing Cal Expo to employ "peace officer marshals."^{14/} Five off-duty peace officer marshals are employed during the State Fair and are augmented by up to 70 off-duty peace officers hired from surrounding areas as "watchmen." During the current year such intermittent officers receive \$6.00 per hour versus \$19.25 per hour for CSP officers.

For "interim" periods, between State Fairs, there are seven unarmed security guards staffing 7.4 forty-hour posts per seven day week.^{15/} The staffing for this workload does not include employee leave or training or the amount of overtime paid.

^{14/}Food & Agriculture Code Section 3324 and Penal Code Section 830.31.

^{15/}As a result of this staff, Cal Expo has requested a reduction in the amount they pay CSP for "pro rata" charges. Cal Expo maintains that by employing their own security staff, CSP is only responding, not patrolling the area.

The State Police have granted exceptions to the "pro rata" charges to the California Highway Patrol (CHP) field offices and Department of Corrections field offices with parole officers. These departments do not pay the per employee charges for the employees at these facilities who have peace officer status.

Pro rata charges do not buy an amount of direct services but are assessments on every department for services provided in areas specified by SAM Section 2625. Therefore, it is inappropriate to exempt agencies from the employee assessment. It is also inappropriate to except Cal Expo from charges because they have peace officer or security staff on duty.

Cal Expo has requested that the seven security guard positions be increased and reclassified as: 1 chief, 3 police officers, 4 security guards. During the State Fair, this staff would be augmented by area peace officers.

Unlike the other agencies discussed so far, Cal Expo has statutory authority to employ peace officers, but such authority should be interpreted in the context of local police agencies having concurrent authority for police services. The Cal Expo police service proposed during "interim" periods is duplicative of both local and state police service in the Sacramento area. Therefore, any "interim" security staffing at Cal Expo should be limited to non-peace officer personnel.

The State Police can provide security services to Cal Expo during interim periods at equivalent cost to State government as a whole when employee time off, training, etc. are considered. The State Fair staff augmentation, however, is being efficiently provided by off-duty peace officers from the area, and without this method of staffing peak workload, the CSP cost equivalence would be lost.

Recommendation

1. In the interest of uniform provision of security services and in view of the lack of adverse fiscal impact on state government by such action, the California State Police should provide security services at Cal Expo, and State Fair coverage should continue to be augmented by off-duty peace officers as long as such personnel are available at competitive rates.
2. No peace officers should be permanently assigned at Cal Expo because of the availability of local and State Police law enforcement response.

Public Health Laboratory, Berkeley

The State Police had a service contract with the Department of Health's (DOH) Public Health Laboratory in Berkeley until 1975. Under this contract CSP provided a security officer 24 hours every day. Beginning in 1975, DOH employed four security guards. The Department defines their service needs as the continuous presence of an unarmed, uniformed guard who patrols inside the building, secures all doors and windows, monitors laboratory temperatures and records the readings, and receives deliveries for the laboratory at any time of the day. The Department requires staff associated with the laboratory to be vaccinated as a disease control measure. During the daytime, the parking lot is included in the guard's patrol and violators are cited by the Berkeley Police Department.

The Berkeley Police Department is five blocks away and patrols the area of the laboratory every 15 minutes. The State Police are on patrol in Richmond and Oakland and can be called for assistance. In addition, the University of California campus is nearby and University Police are always on duty. Therefore, there is no need for DOH to duplicate the enforcement services available in the area.

The Department hired its own staff for cost and service considerations. As noted earlier, DOH considers an unarmed security guard adequate for their needs and CSP had no staff in this category. This is the third example (DOJ and CMSI being the other two) where CSP could not offer a service appropriate to the client's needs. As a result, the departments hired their own staff.

There were also differences between DOH and CSP over the duties to be performed by the guards and the requirement for vaccination. The

services to the laboratory, i.e., receiving deliveries and monitoring temperatures, were considered by CSP to be inappropriate tasks for them to perform.^{16/}

Despite these cost and service considerations, there is no statutory authority for DOH to employ staff for noninstitutional security tasks. The Department authorizes the use of four staff for coverage of the 7 day, 14 hour post; CSP's standard is 4.8 staff. But the coverage is continuous or 168 hours per week, and four staff, each working 40 hours per week without leave or training time-off, would provide 160 hours per week. The department is using overtime to close this eight hour per week gap and to cover staff absences. Plans are being made to request one more position.

Staffing at the DOH Public Health Laboratory should be reconsidered in the context of this report to redirect CSP service from enforcement to security. With a comparable level of service and staff, CSP's costs to State government as a whole would be equivalent to Health's.

Recommendation

Reflecting the provisions of Government Code Section 14613 and our preference for the uniform provision of security services where there are no adverse statewide fiscal impacts, we recommend that the Department of Health contract for CSP security guard service at the Public Health Laboratory.

^{16/}The CSP does perform some tasks for clients which are not strictly security-oriented, e.g., limited equipment monitoring at DWR's Hood facility. The alternative to such cooperation is call-back time at time and a half pay or the 24-hour presence of technical staff.

Game Wardens and Park Rangers

The CSP has suggested that the law enforcement duties performed by game wardens be isolated and consolidated under CSP. In April 1975, the State Personnel Board published a report of salary comparison for, among others, the Game Warden and State Police Officer classes. Patrol is considered the primary task of wardens and CSP officers, with some investigating work. However, it was the conclusion of the Board that "Fish and Game Wardens' jobs. . . [are] significantly more complex than those of Police Officers, CSPD. . . ."^{17/} The Board defines the game warden job as the "patrol of land and water areas of [the] State, including offshore areas, to ensure compliance with laws and regulations relating to the conservation and protection of [fish and game] habitat. Duties include inspection of commercial fishing operations and stream bed alterations. Wardens also conduct follow-up investigations as required."^{18/} For the CSP officers, the job is defined by the Board as, "patrols state facilities to protect the public, state employees and property against unlawful acts."^{19/}

The State Park Ranger is another job class with peace officer powers as well as program responsibilities. The SPB requires Rangers to be knowledgeable about "methods and materials used in preparing and interpreting historical and natural science displays and exhibits, and principles of forest fire, disease and insect damage control and general resource management and protection."^{20/}

^{17/}California State Personnel Board, Personnel Management Services Division, Law Enforcement Salary Study, April 1975, p. 6.

^{18/}Ibid., p. 29.

^{19/}Ibid., p. 30.

^{20/}California State Personnel Board, Series Specification for State Park Ranger, Schematic Codes BR 74, 70, 60, 50, and 40, Class Codes 0982, 0983, 0980, 0977, and 0975, (Sacramento: California State Personnel Board, 1973), p. 3.

If the law enforcement tasks of the rangers and wardens were isolated for CSP takeover, it is extremely unlikely that the net change in CSP officer-warden-ranger staffing could be anything other than an upward change. For example, instead of one park ranger on duty at a given location, there would be one ranger and one CSP officer. It is true that the ranger could be assigned more territory as a result of being freed from law enforcement responsibilities, but it is not at all evident that the assigned area could be doubled. As a result, we see no practical value, in either efficiency or program effectiveness, to be gained by a consolidation of a part of wardens' or rangers' jobs under the CSP.

Institutional Security

State Hospitals

The Department of Health employs 133 Hospital Peace Officers this fiscal year at 11 state hospitals. These officers provide general security and police services similar to what CSP provides to other State facilities, i.e., patrol, parking citations, arrests, access control. The State Personnel Board distinguishes this class from the general law enforcement group by noting that hospital peace officers are "regularly required to perform law enforcement duties in close proximity to mentally ill or retarded patients."^{21/} In addition, hospital peace officers are expected to "learn and apply sound judgment in the enforcement of hospital rules and regulations and applicable State laws necessary for protection of persons and property."^{22/} We collected staffing data from the hospitals;

^{21/}Ibid., Series Specification for Hospital Peace Officer, Schematic Codes UC 48, 45 and 40, Class Codes 1937, 1936, and 1935 (Sacramento: California State Personnel Board, 1975), p. 1.

^{22/}Ibid., p. 3.

however, we could not determine from these data whether or not economies of scale are being achieved. Beat or post assignments overlapped or were not distinct enough to allow a direct comparison with CPS's 1.2 PY per eight hours, five day per post standard.

Notwithstanding the absence of a comparison of position equivalents, the specialized nature of this class minimizes the advantage of centralized CSP services. Further, the location of many state hospitals in areas that are unserved by CSP personnel causes centralized service economies of scale--General Services' inherent strong point--to be lost.

University of California and State Universities and Colleges

There are 254.6 guards and police at the State universities (CSUC) and 208.7 at the University of California (UC) during this fiscal year. Article IX of the State Constitution allows UC to be managed by the University Regents. Education Code Section 22600 allows the University Trustees to manage the State universities. As a result, the University Regents and CSUC Trustees could request centralized services; however, State government cannot compel the Regents and Trustees to purchase centralized services.

Advantages of centralization might accrue if CSP were to serve those campuses located in major metropolitan areas now served by CSP. However, these advantages must be considered in the context of the need for flexibility in the use of guards and officers in an academic setting. The need for a campus chancellor or president to have direct control over how an event, such as a student demonstration, is controlled seems as valid as the CSP's similar need in the Capitol area.

There are 24 separate locations for UC and CSUC campuses; CSP now has staff in only 7 of these locations. Expanding the CSP to cover campuses in the 17 areas where there are no CSP staff would require more than double the number of security and police staff employed by CSP.^{23/} These staff would not contribute to the flexibility and pooling associated with centralized services.

On balance, we believe that continued use of campus police by UC and CSUC has more economic and intangible benefits than would use of CSP officers in that setting.

Veterans' Home at Yountville

The Veterans' Home at Yountville employs nine security officers. The classifications used are Security Officer I, II, and the Chief Security Officer, Veterans Home. The Security Officer series is the same classification used by DOJ and the State hospitals.

These guards are unarmed and uniformed and their primary tasks are routine patrol of the grounds and control of entry and exit. They assist the three Institutional Fire Fighters in fire fighting. There is no fire department in Yountville. Fire units in the general area are maintained by Napa State Hospital and Napa County; therefore, this capability is valuable.

There are three posts for the day shift and two each for the night and swing shifts. Using CSP's standard of 1.2 staff years per 8-hour, 5-day post, 10.8 staff years would be necessary to cover the posts.

^{23/}UC and CSUC have 247.4 PY allocated for the 17 locations in the current fiscal year.

There is no statutory authority for the Veterans' Home to employ their own security staff. The cost and level of service are cited by the Department of Veterans' Affairs as the reason for hiring their own staff. There is no stated need for personnel with peace officer status at the facility.

Yountville lies outside the CSP's current area of operations, and given the remoteness of the area and the apparent efficiency of current staff utilization, there is no advantage to CSP contracting for the work.

APPENDIX

Excerpts from:

Reducing Crime In Apartment
Dwellings: A Methodology For
Comparing Security Alternatives
(P-4656)

by

Michael Liechenstein

The New York City Rand Institute

1971

III. A RANKING SCHEME FOR ALTERNATIVE SECURITY SYSTEMS

Relating these proposed operational criteria to detailed technical specifications is a difficult task. Because of imperfect knowledge of threat characteristics, causality, and the extent to which causative factors influence crime output, we cannot rely solely on objective analysis to allocate resources among security alternatives. These uncertainties, coupled with the complex policy questions which often come into play, the inability to estimate accurately the costs of different proposals, and the difficulty in assessing the benefits of implementation, force us to blend authoritative opinions, experiential judgements, and other subjective evaluations with the facts derived from the analytically tractable portions of the security problem.

The following approach allows us to organize objective and subjective information into a ranking scheme for security alternatives.* The method is useful when deficiencies in objective data make subjective estimates necessary, as is the case in security and crime analysis. The procedure, in addition to being a heuristic analytical tool, can be used to give a trial-and-error synthesis capability. By iterating designs, we can devise security plans that are better matched to protective needs and to the existing environmental, social and other constraints (which may vary significantly among projects, or even among buildings within a project). In so doing, however, we will have to anticipate any induced crime displacements ("spillovers") or escalation effects ("crime switches") and reconcile them with

*Other evaluative schemes are described in Appendix D of Ref. (1) and in Refs. (2) through (4).

the expected short- and long-term benefits of implementation.

The effectiveness ranking scheme comprises four steps:

(1) Description of the Threat Domain -- Security Goals

First a list of the threats or crime categories which are to be treated is specified. Associated with each crime type C_i is a rating c_i which reflects the relative importance of crime C_i with respect to the total N crime types considered.* The values assigned to the c_i will depend on both available crime statistics for all N crime types and the judgments about the magnitude of disbenefit incurred by each and all N crime types.⁽⁵⁾ The value given to c_i will be its percentage of the total, so that the sum of the c_i is always 100, thus,**

$$\sum_{i=1}^N c_i = 100 \quad N = \text{Number of crime categories} \quad (1)$$

(2) Threat-Vulnerability Analysis

Next, an examination of the vulnerabilities in the existing (baseline) security system is made, employing the security criteria discussed earlier. From these vulnerabilities an enumeration of desirable security features, F_{ij} , is made for each crime type, C_i . For the i^{th} crime type, the total

*As an illustration, C_1 might be burglary; C_2 , elevator robbery; C_3 , hallway robbery; etc. If only these three crime types were to be countered, N would be equal to three.

**For example, c_1 might be 50 (percent) for burglary; $c_2=40$ (percent) for elevator robbery; $c_3=10$ (percent) for hallway robbery; etc.

number of desired security characteristics is denoted by M_i .^{*} As before, we assign a weight or relative importance rating f_{ij} to each F_{ij} . Thus, f_{ij} is the percentage impact which factor F_{ij} contributes to the total resistance to crime type C_i . For any particular crime category, the M_i weights f_{ij} will always add up to 100; i.e.,

$$\sum_{j=1}^{M_i} f_{ij} = 100 \quad i = 1, 2, \dots, N \quad (2)$$

(3) Effectiveness Analysis

Third, each considered security alternative or crime remedy is listed and denoted by A_k , where k is an index running from 1 to P , the total number of candidate alternatives.^{**} To each of these alternatives is associated a figure of merit, r_{ijk} , which indicates on some arbitrary scale the estimated efficacy of the k^{th} remedy in providing the j^{th} security countermeasure to the i^{th} crime type. The numbers given to the r_{ijk} can be drawn from an arbitrary scale of $-R$ to R , the negative numbers reflecting the fact that a security measure that is productive in one context may be counterproductive in another.^{***} The security criteria presented earlier can provide a useful guideline for making the numerical assignments, especially

^{*}For example, for $i = 1$, burglary, F_{11} might be apartment ingress limitation; F_{12} , increased lighting and crime visibility, etc.; for $i = 2$, elevator robbery, F_{21} might be building ingress limitation; F_{22} , increased elevator cab visibility; etc.

^{**} A_1 might be a telephone interviewer with remotely actuated lobby door locks; A_2 might be door locks and chains on individual apartment doors; A_3 , express elevators from the lobby to the tenant's floor, key controlled buttons, and transparent doors; etc.

^{***}Thus, if R were chosen as 10, the scale would go from +10 to -10, with 10 indicating excellent; 6 good; 3 fair, 0, no change or effect over

when coupled with data on benefits and effectiveness drawn from experiences with similar crimes and security systems.

(4) Performance Ratings

Using this scheme, which is summarized in the accompanying chart, we can compute several performance scores:

$$T_{ik} = c_i \sum_{j=1}^{M_i} r_{ijk} f_{ij} \quad (3)$$

the performance subtotal for the k^{th} security alternative A_k operating against the i^{th} crime type C_i ; and

$$T_k = \frac{1}{100 \cdot R} \sum_{i=1}^N T_{ik} = \frac{1}{100 \cdot R} \sum_{i=1}^N \sum_{j=1}^{M_i} r_{ijk} c_i f_{ij} \quad (4)$$

the normalized total performance of the k^{th} security alternative A_k against all N crime types C_i .^{*} Utilizing the same scoring units, we can compute a compatibility score by adding together the individual assignments made to each of the compatibility criteria listed before. If the relative importance of compatibility and performance is known, the compatibility scores and performance totals of the security alternatives can then be correspondingly weighted and summed, and cost-effectiveness ratios can be

the baseline system; -3, detrimental; -6, even more harmful; and -10, most damaging. If ratings fall between these categories an expanded scale might be considered.

^{*}The factor $1/(100 \cdot R)$ normalizes T_k to the interval $(-100, 100)$, independent of scale choice R . Thus, the best security alternatives have scores of 100; the worst, -100,

PERFORMANCE RATING SCHEME FOR SECURITY ALTERNATIVES

Crime Types	Rating Percent	Desired Security Characteristics	Rating Percent	Security Alternatives and Ratings			
				A_1	A_2	...	A_p
C_1	c_1	F_{11}	f_{11}	r_{111}	r_{112}	...	r_{11p}
		F_{12}	f_{12}	r_{121}	r_{122}	...	r_{12p}
		\vdots	\vdots	\vdots	\vdots		\vdots
		F_{1M_1}	f_{1M_1}	$r_{1M_1,1}$	$r_{1M_1,2}$...	$r_{1M_1,p}$
C_2	c_2	F_{21}	f_{21}	r_{211}	r_{212}	...	r_{21p}
		F_{22}	f_{22}	r_{221}	r_{222}		r_{22p}
		\vdots	\vdots	\vdots	\vdots		\vdots
		F_{2M_2}	f_{2M_2}	$r_{2M_2,1}$	$r_{2M_2,2}$...	$r_{2M_2,p}$
\vdots	\vdots	\vdots	\vdots	\vdots	\vdots		\vdots
		\vdots	\vdots	\vdots	\vdots		\vdots
		\vdots	\vdots	\vdots	\vdots		\vdots
		\vdots	\vdots	\vdots	\vdots		\vdots
C_N	c_N	F_{N1}	f_{N1}	r_{N11}	r_{N12}	...	r_{N1p}
		F_{N2}	f_{N2}	r_{N21}	r_{N22}		r_{N2p}
		\vdots	\vdots	\vdots	\vdots		\vdots
		F_{NM_N}	f_{NM_N}	$r_{NM_N,1}$	$r_{NM_N,2}$...	$r_{NM_N,p}$

computed.* If the relative weights are not exactly known, a sensitivity analysis can be made. The alternatives with the highest grand totals may finally be picked as the most promising and/or selected for further scrutiny. If the latter course is elected, a "Delphi-like" procedure can be employed to iteratively refine the values ascribed to the c_i , the f_{ij} , and the r_{ijk} .⁽⁶⁾ Where consensus does not occur, experiments can be designed and run to resolve ambiguities or to yield more precise data.

*Before combining the scores, minimum acceptable performance levels should be set for each individual criterion and satisfied by each alternative. Even so, the consolidation of individual, disparate scores into one measure may be misleading (see Ref. (15), pp. 25-26) and mask the inevitable, difficult tradeoffs that must accompany final selection of alternatives.

* * *

Liechenstein showed an application of his technique in the following tables and illustrations.

The crimes of burglary (C_1) and robbery (C_2) inside apartment buildings were chosen for security countermeasures, and their respective rankings were $C_1 = 24$ and $C_2 = 72$ ($\sum C_i = 100$).

Next for each crime, C_1 and C_2 , several desirable security characteristics ranging from "prevent building access (f_1)" to "provide identification evidence (f_8)" were ranked according to their importance. The rankings (f_j) totaled 100 for each crime category.

Fifteen alternative means (A_k) of providing each of the desired security characteristics (f_j) were ranked with ranking score as follows:

r_{ijk} = 10, most effective
 6, good effectiveness
 3, fairly effective
 0, no improvement
 -3, detrimental
 -6, more harmful
 -10, damaging

Performance scores (T_{ik}) for each category were then calculated.

Taking the security alternative A_4^* as an example, its performance against burglary was judged to be:

C_i	x	f_{ij}	x	r_{ijk}	=	T_{ik}
24		10		4		960
24		30		10		7200
24		10		3		720
24		10		7		1680
24		10		1		240
24		10		0		0
24		10		1		240
24		10		1		240
--		100		--		11280
$T_{ik}/1000^{**}$						<u>11</u>

*Phone call-up, locked lobby, exit alarm, apartment door armor, and deadbolt chainlock.

**To normalize the scale to 100.

To arrive at joint performance scores for burglary and robbery, the subtotal scores were simply combined.

Finally, the effectiveness/cost ratios of the security alternatives were plotted and the optimal alternatives (A_4 , with A_3 and A_{10} nearly the same) identified by the slope of the curve. Tabular display of the effectiveness/costs ratios would have permitted selection as well.

ESTIMATED PERFORMANCE RATINGS FOR SECURITY ALTERNATIVES

Crime Types	Rating (percent)	Desired Security Characteristics	Rating (percent)	Security Alternatives Ratings ^a														
				A ₁	A ₂	A ₃	A ₄	A ₅	A ₆	A ₇	A ₈	A ₉	A ₁₀	A ₁₁	A ₁₂	A ₁₃	A ₁₄	A ₁₅
1. Burglary Inside	24	1. Prevent Building Access	10	3	3	4	4	4	4	0	6	6	7	4	8	10	10	10
		2. Prevent Apartment Access	30	0	0	7	10	9	8	0	7	9	9	9	9	7	9	7
		3. Detect by Patrol or Surveillance	10	0	0	2	3	3	7	3	0	10	10	9	4	0	10	0
		4. Increase Crime Duration & Visibility	10	1	1	6	7	7	8	0	7	9	9	9	9	5	9	5
		5. Transmit Alarm Rapidly	10	0	0	1	1	1	2	0	5	8	9	8	8	9	10	9
		6. Respond Rapidly - Police/Guard	10	0	0	0	0	0	0	5	3	3	4	0	5	10	10	10
		7. Prevent Escape or Concealment	10	0	0	1	1	1	2	3	2	3	4	2	6	10	10	10
		8. Provide Identification Evidence	10	1	1	1	1	1	2	1	3	4	5	3	6	8	10	8
Subtotal Score/1000				1	1	9	11	11	12	3	11	17	18	15	18	18	23	18
2. Robbery Inside	76	1. Prevent Building Access	35	3	3	4	4	4	4	0	6	6	7	4	8	10	10	10
		2. Prevent Apartment Access	1	0	0	2	2	2	2	0	2	3	3	3	3	2	3	2
		3. Detect by Patrol or Surveillance	14	0	0	0	0	0	0	3	1	1	2	8	3	4	5	4
		4. Increase Crime Duration & Visibility	15	1	1	2	2	2	2	0	3	3	3	2	4	5	5	5
		5. Transmit Alarm Rapidly	5	0	0	1	1	1	1	0	5	5	6	8	8	9	9	9
		6. Respond Rapidly - Police/Guard	15	0	0	0	0	0	0	5	3	3	4	0	5	10	10	10
		7. Prevent Escape or Concealment	10	0	0	1	1	1	1	3	2	2	2	2	3	10	10	10
		8. Provide Identification Evidence	5	0	0	1	1	1	2	1	3	4	5	4	6	8	8	8
Subtotal Score/1000				9	9	15	15	15	15	12	29	29	35	28	43	62	63	62
Total Score/1000				10	10	23	26	25	27	14	40	46	53	43	60	80	86	80

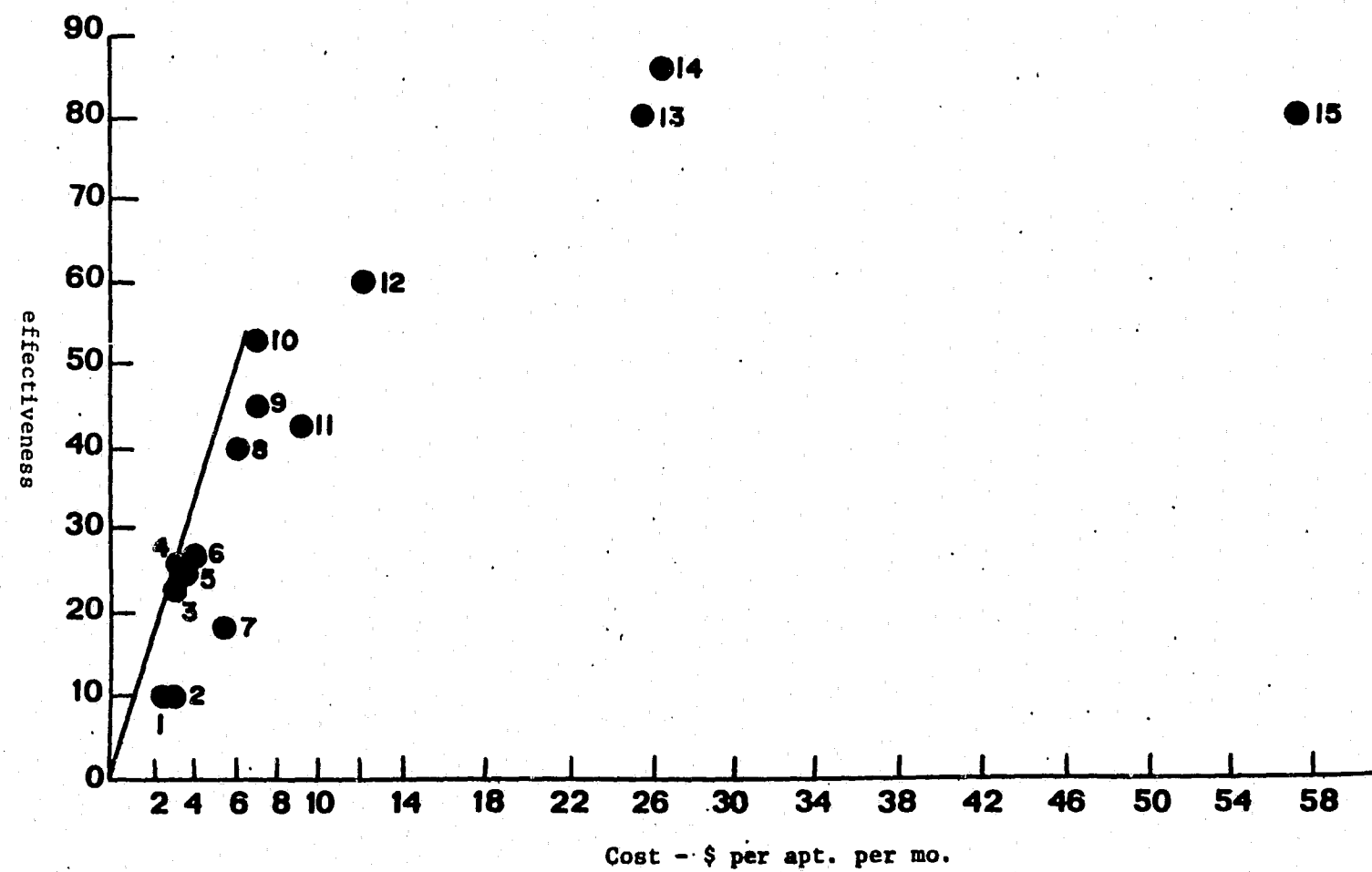
^aRatings: 10 = most effective; 6 = good effectiveness; 3 = fairly effective; 0 = no improvement; -3 = detrimental; -6 = more harmful, and -10 = damaging.

DESCRIPTION OF SECURITY ALTERNATIVES

SECURITY ALTERNATIVES AND ESTIMATED AVERAGE COST*				
I INTERCOM LOCKED LOBBY APARTMENT LOCKS	II HAPD PROJECT PATROLMAN	III CATEGORY I PLUS REMOTE GUARD SURVEILLANCE	IV CATEGORY I PLUS PERSONAL & APT. ALARMS	V CATEGORY I PLUS LOBBY GUARDS/POLICE
A ₁ Intercom & Locked Lobby \$2.65	A ₇ Add 1 HAPD Officer per Project Full-time \$5.44	A ₈ Intercom, Exit Alarm, Apt. Door Armor, Full-time T.V. Lobby Surveillance by Remote Guard \$6.20	A ₁₁ A ₃ Plus Personal Transmitters, Burglar Alarms, Computer Monitoring Service \$9.08	A ₁₂ A ₉ But with Guard in Lobby One Shift \$12.58
A ₂ Phone Call-up & Locked Lobby \$2.85		A ₉ A ₈ Plus Apart- ment Alarms to Guard Station \$7.06		A ₁₃ A ₁₂ With Full-time Lobby Guard, Less Apt. Alarms \$25.49
A ₃ A ₂ Plus Exit Alarm & Apt. Door Armor \$3.08		A ₁₀ A ₉ Plus Glass Guard Booth \$7.08		A ₁₄ A ₁₃ Plus Apt. Alarms \$26.35
A ₄ A ₃ Plus Deadbolt Chase Lock \$3.29				A ₁₅ A ₁₃ But with Full- time HAP in Lobby, Less Apt. Alarms \$57.39
A ₅ A ₃ Plus Highly Resistant Vertical Deadbolt Lock and Cylinder \$3.34				
A ₆ A ₂ Plus Alarm Lock \$3.94				

* Dollars per apartment per month.

AVERAGE EFFECTIVENESS/COST RATIOS OF SECURITY OPTIONS



SELECTED BIBLIOGRAPHY

- Burglary Insurance Manual, San Francisco: Insurance Services Office, 1978
- California Department of Justice, Building Security Standards, 1974.
- California Office of Criminal Justice Planning, Crime-Specific Burglary Prevention Handbook, 1974.
- Fairley, William and Liechenstein, Michael, Improving Public Safety in Urban Apartment Dwellings....R-655-NYC. New York: The New York City Rand Institute, 1971.
- Healy, Richard J. and Walsh, Timothy J., Industrial Security Management.... New York: American Management Association, 1971.
- Hemphill, Charles F., Jr., Management's Role in Loss Prevention, New York: American Management Association, 1976.
- Kingsbury, Arthur A., Introduction to Security and Crime Prevention Surveys, Springfield, Ill.: Charles C. Thomas Publishing, 1973.
- Lenz, Matthew, Jr. Risk Management Manual, Santa Monica: The Merritt Company, 1971-1976.
- Liechenstein, Michael, Reducing Crime in Apartment Dwellings: A Methodology for Comparing Security Alternatives, P-4656, New York: The New York City Rand Institute, 1971.
- Naidich, Arnold, ed., Protect Your Company from A to Z, New York: Man and Manager, Inc. 1976.
- San Luis, Ed, Office and Office Building Security, New York: Security World Publishing Co., 1973.
- Weber, Thad L., Alarm Systems and Theft Prevention, New York: Security World Publishing Co., 1973.
- Williams, C. Arthur and Heins, Richard M., Risk Management and Insurance, New York: McGraw-Hill, 1964.
- Ursic, Henry S. and Pagano, Leroy E., Security Management Systems, Springfield, Ill.: Charles C. Thomas Publishing, 1974.
- U.S. Department of Commerce, National Bureau of Standards, Guidelines for Automatic Data Processing Physical Security and Risk Management, FIPS PUB 31, 1974.