

AN EVALUATION OF THE MANDATED
STATEWIDE EMERGENCY TELEPHONE NUMBER (911) PROGRAM

A REPORT PURSUANT TO
CHAPTER 352, STATUTES OF 1978 (SB 1457)

REVISED
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ACKNOWLEDGEMENT

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PREFACE TO OUR REVISED REPORT

Our May 1979 report, An Evaluation of the Mandated Statewide Emergency Telephone Number (911) Program, contained an estimate of the revenue which would be produced by the telephone surcharge tax used to finance the 911 program. As a result of a technical error, this estimate was understated.

Although the estimate of revenues had no bearing on our conclusions and recommendations regarding the mandated statewide 911 program, it did affect the estimated funding available for the program, which we addressed in Chapter II. In addition, subsequent to publishing our report the Board of Equalization changed its interpretation of existing law as to how the balance of funds accumulated will affect adjustments in the surcharge rates. Accordingly, it is necessary to revise our report in order to reflect the projected revenue available for this program as accurately as possible.

In addition to the revised projections of revenue presented in Chapter II, this report includes more recent information about the 911 program:

1. According to General Services, as of July 11, 1979, forty-seven 911 systems have been implemented by local jurisdictions and 53 more systems have been ordered since the mandate became effective. (When our initial report was prepared, 37 systems had been implemented and 43 more systems had been ordered.)

2. Currently, there is about \$21.5 million in the State Emergency Telephone Number Account. (When our initial report was prepared, there was about \$19 million in the account.)

These revisions appear in Chapter V.

CHAPTER I
INTRODUCTION AND SUMMARY

A. OVERVIEW

"911" (Nine-one-one) is the three-digit telephone number which, where it is available, allows the public to call for emergency assistance without dialing a different seven-digit number for each type of emergency (e.g., police, fire, medical).

Chapter 1005, Statutes of 1972 (AB 515), mandated the statewide implementation of 911. Four years later the Legislature provided for 911 funding through a surcharge levied on intrastate telephone calls (Chapter 443, Statutes of 1976 (AB 416)). Chapter 352, Statutes of 1978 (SB 1457), postponed mandatory implementation of 911 for one year and directed that the Office of the Legislative Analyst present to the Legislature in April 1979 a report which is to include the following:

"(a) An evaluation of the cost of final plans submitted to the Department of General Services for approval and reimbursement.

"(b) An evaluation and recommendation on disputes between local agencies and the state concerning state reimbursement of incremental costs.

"(c) An evaluation and recommendation as to: (1) the feasibility of adjusting the maximum surcharge rate to a level that will produce sufficient revenue to fully fund all actual costs of establishing and operating the system based on the review and evaluation of system costs submitted by local agencies, and (2) alternative, equitable, and workable methods for distributing revenues to fully reimburse local agencies.

"(d) An evaluation in general of the cost/benefit effects of the 911 system, to include, but not be limited to, comparisons of costs and benefits in relation to number of persons to be served, effectiveness of response times, information on other state and local experience, and general estimates of long-range costs and telephone surcharge requirements."

Description of 911

The concept of a standard emergency number dates back to 1937, when Great Britain established "999" for that purpose. Since then, several other countries have adopted single emergency numbers. Belgium uses "900", Denmark has "000", and in Sweden callers dial "9000".

In the United States, the American Telephone and Telegraph Company (AT&T) first offered to make 911 available as an emergency number in 1968. It did so in response to a 1967 recommendation by the President's Commission on Law Enforcement and Administration of Justice which stated "Wherever practical, a single number should be established, at least within a metropolitan area and preferably over the entire United States...."

In 1973, the Office of Telecommunications Policy, Executive Office of the President, issued a policy statement encouraging the adoption of 911 on a nationwide basis. 911 was chosen because it is easy to remember and dial. By dialing 911, a citizen can get more rapid access to an emergency service agency than he can if he has to look up the seven-digit number before dialing or request assistance from an operator. In the past, dialing "0" was usually an efficient means for reaching an emergency service agency. However, as the telephone companies continue to centralize their operator positions, dialing "0" becomes an increasingly ineffective way to request emergency aid. An operator answering calls from a large geographic area cannot be expected to be familiar with all local addresses and agencies.

The basic system. A basic 911 system automatically connects a person to an established public safety answering point (PSAP) through

normal telephone service facilities. Depending on the design of the local 911 system, the PSAP operator may either dispatch the emergency vehicle directly or transfer the caller to the appropriate agency for further questioning and dispatch. Because about 80 to 85 percent of all calls for emergency services request police assistance, police departments have typically been designated as the PSAP. In those cases, all emergency calls are routed to police operators, who ascertain the type of assistance being sought, and transfer calls for fire and medical assistance to the appropriate agencies.

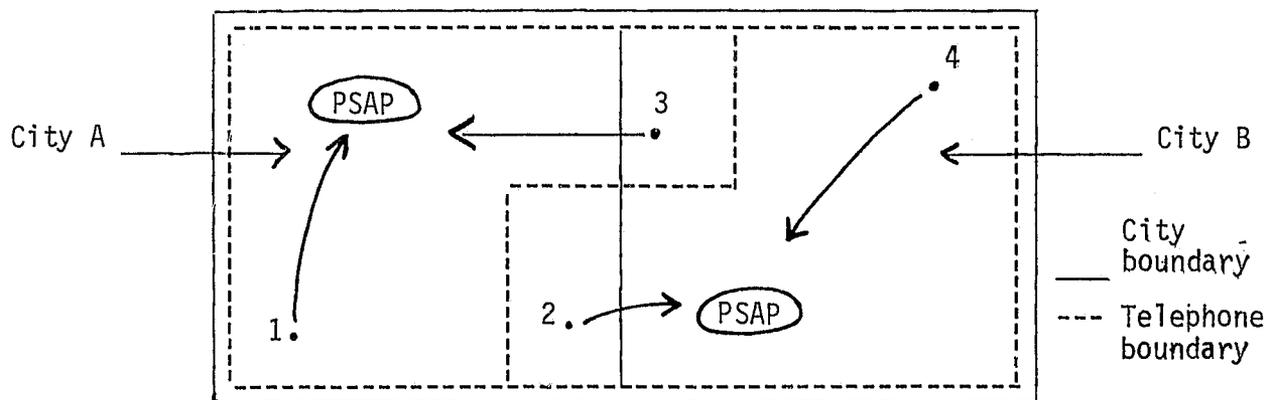
A basic system can be enhanced through the addition of numerous sophisticated telephone equipment features, such as automatic number identification (ANI), which automatically displays the number of the telephone used to place the 911 call, and automatic location identification (ALI), which displays the caller's address.

The boundary mismatch problem. The biggest technical obstacle to the establishment of 911 service is the boundary mismatch that exists between certain political jurisdictions and telephone company exchange areas. Under a basic 911 system, all calls originating within a telephone exchange area (also referred to as a wire center or central office) ring at one central point. When there is a boundary mismatch, a PSAP may receive emergency calls from citizens who are not residents of that jurisdiction.

Figure 1 illustrates the mismatch problem. A call originating from point 2 is answered in City B, even though the caller lives in City A. Similarly, a call from point 3 within City B is answered by

the City A PSAP. Under a basic 911 system, these calls would have to be transferred to the appropriate PSAP by the answering agency.

Figure 1
The Boundary Mismatch Problem



Calls originating from points 1 and 4 will be answered by the PSAP in the jurisdiction responsible for providing emergency assistance.

Because European countries using a 911-type system do not have boundary mismatch problems, they have found it relatively easy to convert to a single emergency number. Great Britain, for example, has a national police force and a national telephone system. Consequently, there are no conflicts between public safety jurisdictions and telephone boundaries. California, on the contrary, probably has a greater mismatch problem than most other areas in the United States. In the entire state, only one city (the City of Alameda) has a boundary that coincides exactly with the telephone exchange boundary.

The boundary mismatch problem has discouraged implementation of 911 in the United States, particularly in California, for two reasons. First, local agencies generally do not want other jurisdictions answering emergency calls from their citizens. In the example depicted by Figure 1, Cities A and B would have to agree on a procedure for answering and transferring calls prior to implementing 911. Sometimes the cooperation necessary for developing such procedures is difficult to attain. Second, where the mismatch problem is extensive, such as in parts of Southern California where there is a proliferation of local jurisdictions and public safety agencies, a basic 911 system may not be effective. If a high percentage of the calls would be answered by the wrong jurisdiction, the potential time savings of 911 might not be obtained.

Selective routing. As a solution to the boundary mismatch problem, the telephone companies have developed "selective routing." Selective routing is a type of emergency telephone system which relies on the telephone company's central office switching computer to recognize where each 911 call is originating and to route it to the appropriate jurisdiction automatically.

Because the required telephone equipment is sophisticated and the data file must be updated continually as people move and telephone numbers change, selective routing involves higher installation and ongoing costs than does basic 911 service. The actual costs of a selective routing system, however, have not yet been well established. Only two selective routing systems presently are operating in the United States -- one in Chicago and one in Alameda County. The costs of the Alameda County pilot project have not been clearly determined.

911 Systems in Operation

At present there are about 750 basic 911 systems in operation throughout the United States, 43 of which are in California (see Appendix A). In addition to California, 11 states have passed legislation concerning 911. Of these, three have mandated statewide implementation of 911, while the others have encouraged implementation. It is our understanding that only two states (Florida and Minnesota) have provided funds to assist local agencies in paying for 911 systems.

Reasons for Adopting a 911 System

A number of reasons have been advanced for implementing 911, including the following:

1. The digits "911" are easy to remember and dial.
2. A caller need not be aware of which political jurisdiction he is in at a given time or know the particular agency to call in order to request emergency assistance.
3. Emergency calls are handled by specially-trained personnel.
4. Emergency response time (that is, the time between when an emergency occurs and when assistance arrives at the scene) will be reduced.

Analysis of these reasons, however, indicates that the first three are important only because they may result in a reduction in response time. Thus, reason number four appears to be the only valid purpose of 911. The other stated purposes are really only means for achieving the objective of reducing emergency response time.

Our Approach to the Issue

A review of the literature regarding 911 indicates that most writers start by assuming that 911 is an appropriate technique for reducing response time and then proceed directly to the question of "How can we best use 911?" This study considers a more basic issue: "Is 911 a good way to achieve the objective of reducing response time, given its cost?" Approaching the issue in this way leads to a consideration of three alternative courses of action which are available to the Legislature:

1. Continue mandating statewide implementation of 911.
2. Modify existing legislation to provide partial reimbursement (on a formula basis) to local agencies choosing to implement 911 systems.
3. Repeal existing legislation mandating implementation of 911.

The subsequent portion of the report is organized as follows:

- Chapter II projects the costs of implementing a mandatory statewide 911 system in relation to available revenues under various assumptions.
- Chapter III discusses the benefits of 911 systems in general.
- Chapter IV compares the advantages and disadvantages of three major alternative courses of action open to the Legislature.
- Chapter V sets forth our recommendations to the Legislature.

The balance of this chapter summarizes our principal findings and conclusions.

B. SUMMARY OF FINDINGS AND CONCLUSIONS

Chapter II: Estimated Funding Requirements for Statewide Implementation of 911

Estimated costs of statewide 911. Costs reflected in the final 911 plans submitted by local agencies to the Department of General Services in 1978 represent the "high" cost estimate of a mandatory statewide 911 program. The level of reimbursements proposed by General Services represents the "low" cost estimate.

The difference between the high and low estimates represents the costs proposed for reimbursement by local agencies which were not approved for reimbursement by General Services.

Using the high estimate, total annual costs to the state would increase to about \$80 million in 1983-84, and then level off at about \$55 million.

Using the low cost estimate, total annual costs to the state would increase to about \$36 million in 1983-84, and then level off to about \$25 million.

It is not possible to determine what the appropriate levels of costs for the 911 systems are because:

1. No criteria exist for deciding which nontelephone costs are a necessary part of the system mandated by the Legislature.
2. No criteria exist for deciding when advanced telephone equipment features (such as selective routing, ALI, and ANI) are warranted.
3. Selective routing costs (which are much greater than

basic system costs and account for a large proportion of total statewide 911 costs) are not well established.

Funding the statewide 911 system. Existing law provides for a surcharge of up to .75 percent on intrastate telephone charges to finance 911. Projected revenues under existing law may be insufficient for funding total 911 costs beyond 1982-83. We estimate that, during 1983-84, the program's fiscal condition could range from a deficit of \$38 million to a surplus of \$10 million.

To fully reimburse local agencies, under a "flexible surcharge rate" approach, a rate of up to:

- (a) 2.03 percent would be required during 1983-84, leveling off to about 1.34 percent in subsequent years (based on the high cost estimate).
- (b) .76 percent would be required during 1983-84, leveling off to about .62 percent in subsequent years (based on the low cost estimate).

Chapter III: Benefits of 911

Any tangible benefits from 911 depend on the extent to which (1) 911 shortens response time (that is, the time between when an emergency occurs and when help arrives) and (2) the shorter response time (if any) results in more lives and property saved and more criminals apprehended. No data are available which demonstrate that 911 shortens emergency response time and provides tangible benefits. Thus, support for 911 is based on individual, publicized cases and on supposition, rather than on hard evidence.

The impact of 911 on response time is likely to be minimal.

Responding to an emergency involves a number of discrete actions: discovering the emergency, reaching a telephone, calling the proper response

agency, dispatching emergency assistance, moving emergency personnel and equipment to the scene. Only one of these actions (calling the proper response agency) can be affected by 911. A 911 system could potentially trim response time, but only in situations where the caller neither knows the proper number nor has it conveniently posted. The time saved, however, may be minor in relation to the time that elapses between the occurrence of an emergency and the arrival of emergency assistance. In some cases, the potential time savings would be negated by the unavailability of responding units. In other cases, 911 could actually increase response time if a call must be transferred to the appropriate agency. Based on our analysis, it appears that 911 has a minimal effect on emergency response time.

Time saved may not result in benefits. A small time savings resulting from 911 could reduce the damage caused by a fire or save the life of a coronary patient. It is less consequential, however, for most police emergencies (which account for 80 to 85 percent of emergency calls). Given the fact that all emergency calls in the typical 911 system are routed through the law enforcement agency, even the potential benefit resulting from 911 may not be realized in fire or emergency medical situations if the time required to transfer the calls to the appropriate agency offsets the time savings of dialing 911 instead of the agency's seven-digit number.

Chapter IV: Alternative Courses of Action

MANDATORY 911

Under the mandatory 911 alternative, all local jurisdictions would be required to implement 911 and would be reimbursed under the

provisions of existing law for the additional telephone and incremental costs which they would incur.

Advantages. The principal advantage of the mandatory 911 alternative is that a single, statewide emergency telephone number would result. This would allow persons residing in any community or traveling anywhere throughout the state to request emergency service by dialing "911".

Disadvantages. The mandatory 911 alternative has the following disadvantages:

1. Local agencies would be required to implement 911 systems even when such systems would (a) offer no significant benefit, (b) not be aimed at the "weakest link" in existing emergency communication systems, or (c) not be the most economical method for improving emergency response time.
2. Local agencies lack sufficient incentive for designing 911 systems in the most economical manner.
3. It is unlikely that the state would be able to reimburse local governments in an equitable manner.

PERMISSIVE 911

Under the permissive 911 alternative, no local agency would be required to implement a 911 system. Those choosing to do so would be reimbursed on a formula basis for a portion of their costs.

Advantages. A permissive 911 program would have the following advantages when compared to a mandatory 911 program:

1. Local agencies would be more inclined to implement 911 only when it is a cost-effective method for reducing emergency

response time.

2. Local agencies would have an incentive for designing 911 systems in an economical manner.
3. The reimbursement process would be much simpler to administer and, therefore, could be applied in a more consistent and equitable manner under a formula than under the mandatory program.

Disadvantages. The permissive approach, as compared with the mandatory alternative, has two primary disadvantages:

1. It does not provide for a single, statewide emergency telephone number.
2. Even if agreement could be reached on reimbursement objectives, it would be impossible to devise a formula that would be considered fair by all.

REPEAL 911

The third alternative available to the Legislature is to repeal existing law requiring implementation of 911 and make the adoption of 911 systems a local matter entirely.

Advantages. By repealing the 911 legislation the Legislature would avoid all of the disadvantages of the mandatory alternative. Local agencies could install 911 systems at their own expense if they felt the full costs of the systems (rather than merely their share of these costs) were justified by the benefit of 911.

Disadvantage. The only significant disadvantage of this alternative, as compared with the mandatory 911 alternative, is that

it would not result in a single statewide emergency telephone number.

Chapter V: Recommendations

We recommend that the legislation requiring local governments to implement 911 systems be repealed. Based on our analysis we do not believe that local jurisdictions should be required or subsidized to implement 911 systems for the following reasons:

1. Tangible benefits of 911 have not been demonstrated, and the nature and extent of such benefits depend largely on circumstances in the particular local community.
2. Under a mandatory 911 program:
 - (a) Local agencies would be required to implement systems even when such systems would (1) offer no benefits or (2) not be the most economical method for improving emergency response time. (Telephone stickers, for example, might be an effective method for reducing response time at a fraction of the cost of implementing a 911 system.)
 - (b) Local agencies would lack sufficient incentive for designing 911 systems in the most economical manner.
 - (c) The state would be unable to reimburse local agencies in an equitable manner.
3. Where 911 is considered a high priority, it could be implemented without state assistance.

We recommend that, if existing 911 legislation is not repealed, it be modified to provide for (1) implementation of 911 on a permissive basis and (2) partial reimbursement on a formula basis.

We recommend that, if the existing 911 legislation is repealed,
the funds currently in the State Emergency Telephone Number Account
be used to defray a portion of the future telephone costs incurred by
those local agencies which have implemented or ordered 911 systems
since the mandate became effective.

CHAPTER II

ESTIMATED FUNDING REQUIREMENTS FOR STATEWIDE IMPLEMENTATION of 911

In this chapter we first present the estimated costs of implementing 911 on a statewide basis and then discuss the revenue requirements for meeting those costs.

A. ESTIMATED COSTS OF STATEWIDE 911

Local Agency Final Plans

According to the final plans submitted to the Department of General Services by local agencies, annual costs of a statewide 911 system will increase from \$1.5 million to \$80 million during the implementation stage. Annual maintenance costs, once all 911 systems are operating, will be approximately \$55 million.

Local agency plans present four types of costs proposed for state reimbursement:

- One-time telephone costs (initial costs of installing 911 telephone equipment)
- Annual telephone costs (recurring charges for telephone services)
- Initial or one-time nontelephone costs
- Recurring nontelephone costs

Department of General Services' Proposed Reimbursements

The Department of General Services has not attempted to estimate the costs to local government of meeting the requirements of Chapter 1005. Instead, the department has reviewed the reimbursement requests submitted by local governments and proposed reductions in the amounts to reflect

(1) what it considers as necessary additional costs attributable to 911 and (2) the funds likely to be available from surcharge revenues. Table 1 compares the total reimbursements requested by local agencies with the total reimbursable costs as proposed by General Services. Appendix C shows the information for each final plan submitted by the local agencies. The table shows that General Services proposes reducing (1) one-time nontelephone costs by 83 percent, (2) annual nontelephone costs by 84 percent, (3) one-time telephone costs by 15 percent, and (4) annual telephone costs by 23 percent.

Table 1

Comparison of Reimbursements Requested by Local Agencies
With Reimbursable Costs Proposed by Department of General Services^a
(in millions)

	<u>Requested by Local Agencies</u>	<u>Estimated by General Services</u>	<u>Reduction Proposed by General Services</u>	
			<u>Amount</u>	<u>Percent</u>
Telephone Costs:				
One-time	\$16.5	\$14.0	\$ 2.5	15%
Annual	20.5	15.8	4.7	23
Incremental (Nontelephone) Costs:				
One-time	\$16.8	\$ 2.8	\$14.0	83%
Annual	17.8	2.8	15.0	84

a. This table presents a simple total of proposed reimbursements for all final plans and does not reflect the time frame over which reimbursements would be made by the state.

Source: Department of General Services.

If these reductions are made, the annual costs to the state for implementing 911 systems on a statewide basis would increase from \$0.9 million in 1978-79 to \$36 million in 1983-84 and level out at approximately \$25 million by 1985.

Problems in Estimating Reimbursable Costs

We do not believe it is possible to estimate with any precision the cost to the state of implementing a statewide 911 program because:

1. No criteria exist for deciding which nontelephone costs are a necessary part of the system mandated by the Legislature.
2. No criteria exist for deciding when advanced 911 telephone equipment features such as selective routing, ALI, and ANI, are warranted.
3. Selective routing costs, which are much greater than basic system costs and account for a large proportion of total statewide 911 costs, are not well established.

We discuss these problems in the following paragraphs.

1. There are no criteria for deciding which nontelephone costs are necessary. Incremental (nontelephone) costs are difficult to define. Section 53108.1 of the Government Code defines incremental costs as those necessary for the establishment of a 911 system, other than primary equipment costs, "which are reasonable, necessary and unique for the planning and efficient implementation of a local agency's 911 system." In practice, this has been interpreted as meaning primarily personnel, planning, remodeling, training and publicity costs.

It is difficult, if not impossible, to determine which cost items are a direct result of 911 and which ones would be incurred even without 911. Requests for additional personnel and office space are particularly difficult to evaluate in this regard. The fact that local agencies typically plan to make other kinds of changes (such as expanding their existing nonemergency communications systems) at the same time they are implementing 911 makes it still more difficult to distinguish 911 costs from other agency costs.

Local agencies have taken various approaches in computing incremental costs. The following three examples illustrate the difficulties faced by General Services in evaluating reimbursement requests for incremental costs contained in the 911 plans submitted by the local agencies.

Example 1: The impact of 911 on staffing and space requirements depends on the increased number of calls which result. Los Angeles City and Los Angeles County both used the same data from communities which previously implemented 911 systems to estimate the increase in the number of calls which would occur as a result of implementing 911. Los Angeles City estimated that call volume would increase 10 percent while Los Angeles County estimated that the number of calls would increase by 100 percent. Consequently, Los Angeles County anticipates a much higher level of incremental costs. There is no basis, however, for determining which, if either, estimate is correct.

Example 2: Los Angeles County also provides a good example of the difficulty involved in separating 911 costs from the costs of concurrent, non-911 related changes. The county is proposing to consolidate dispatch operations in one center, which will also contain 911 operations. It proposes building a new facility at a cost of \$5.5 million and has attributed \$3.2 million of this cost to 911. There is no basis for determining the proportion, if any, of this cost which is directly attributable to 911.

Example 3: The various cities within Orange County have asked for one-time incremental costs ranging from \$324,000 for Buena Park (population 63,900) to \$2,000 for Newport Beach (population 65,000). Two cities each included as incremental costs an amount of \$16,000 for one-time publicity costs, while six other cities included nothing for publicity.

The 911 staff at General Services has not developed criteria for evaluating requests for incremental cost reimbursement. Instead, the staff has recommended arbitrary levels of reimbursement based on the amount of funds which the department anticipates will be available after all telephone costs have been reimbursed. Throughout most of the southern portion of the state, for example, General Services has recommended that each local agency receive a reimbursement of \$1,000 for one-time incremental costs, regardless of the amount requested in their final plans. Overall, General Services has recommended approving only about 17 percent of the total amount of incremental costs requested by local agencies, as we indicate in Table 1 on page 16.

2. There are no criteria for determining when advanced telephone features (e.g., selective routing) are warranted. It is not always possible to determine when advanced telephone features are justified. This is illustrated in the following two examples.

Example 1: selective routing. Based on the 911 plans submitted by local agencies, 62 percent of the population in California would be served by selective routing, and such systems would account for over 75 percent of the total one-time 911 costs, 65 percent of annual telephone 911 costs, and 78 percent of annual incremental costs, as we indicate in Table 2 on page 23.

Although there is probably a valid need for selective routing systems in some areas, there are two reasons why local jurisdictions might propose such systems even if they are not warranted to meet program goals. First, selective routing can be used to avoid the necessity of cooperating with other jurisdictions in transferring calls which are received by the wrong agency as a result of the boundary mismatch problem. (We describe this problem in the Introduction on page 3.) Second, local representatives have expressed the belief that the Department of General Services is more likely to reimburse local governments for the equipment costs of selective routing than the additional personnel costs which would result from implementing a basic system rather than selective routing.

Because selective routing systems are much more costly than basic systems, the extent to which such systems are approved will have a significant impact on state and local costs. Yet, neither

General Services staff nor others whom we contacted during our study were prepared to suggest specific criteria for evaluating requests for selective routing systems.

Example 2: automatic number identification and automatic location identification. Some local officials have stated that only with automatic number identification (ANI) or automatic location identification (ALI) will 911 be an improvement over existing emergency communication systems. In many systems, however, these features would not be cost-effective or operationally beneficial. Yet, no criteria have been established for determining when ALI, ANI, and other advanced equipment features are justified. In the absence of evaluation criteria, General Services has made the policy decision that no jurisdictions are to be reimbursed for ANI or ALI, a decision which is strongly opposed by those agencies requesting these features.

3. Selective routing costs are not well established. Only two selective routing systems are operating in the United States and both were implemented recently. Consequently there is not sufficient experience for making reliable estimates of selective routing costs. The facts that selective routing costs (1) represent the major portion of total 911 costs and (2) are subject to change add a large degree of uncertainty to 911 cost projections.

Long-Range Cost Projections

Figure 2 presents projected state costs for reimbursing local jurisdictions for implementing the existing mandatory 911 program.

The estimates are based on the following assumptions:

1. Costs submitted by local agencies represent the "high" estimate in a range of probable costs, and reimbursements proposed by General Services represent the "low" estimate. (It should be noted that, because of the uncertainty of the data upon which local government cost projections are based, we cannot state with certainty that actual 911 costs will not exceed the "high" estimate.)
2. Telephone costs (both one-time and annual) will increase at a rate of 5 percent per year. This assumption is based on estimates provided by the Pacific Telephone Company and our discussion with executive staff of the Public Utilities Commission.
3. Incremental costs (both one-time and annual) will increase at a rate of 7.5 percent per year, based on an estimate of the average increase in the consumer price index during the next six years.
4. 911 systems will be implemented according to a schedule derived by General Services from the final plans.

Table 2

Reimbursements Requested by the Seven Counties
Proposing Selective Routing Systems
As Percentage of Reimbursements Proposed by All Counties
(in millions)

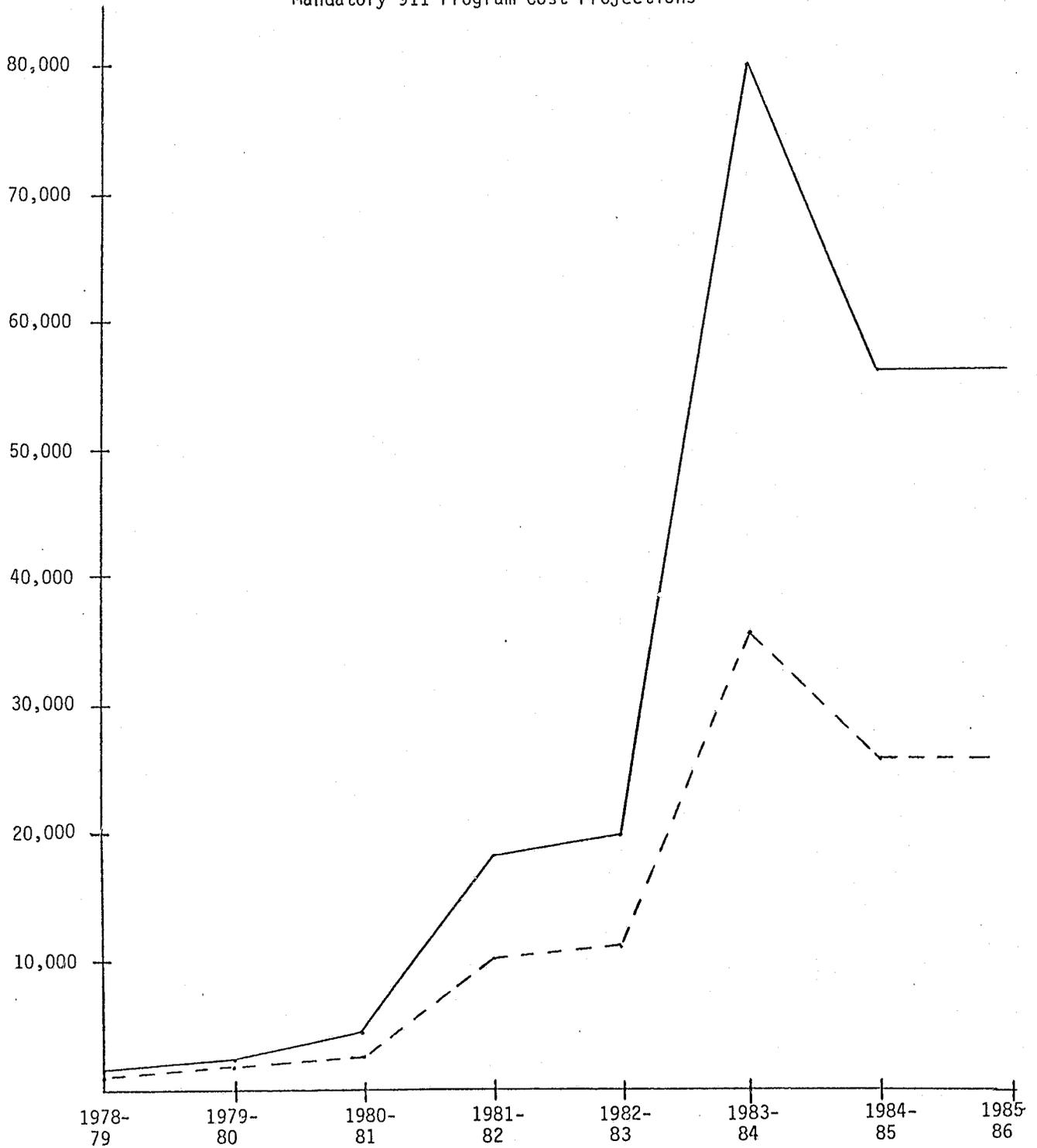
<u>Counties Proposing Selective Routing</u>	<u>Population Served</u>	<u>One-time Costs</u>		<u>Annual Costs</u>	
		<u>Telephone</u>	<u>Incremental</u>	<u>Telephone</u>	<u>Incremental</u>
Los Angeles	7,061,313	\$7.4	\$10.3	\$7.4	\$9.6
Orange	1,808,225	1.6	1.3	1.6	1.7
San Diego	1,694,825	1.4	0.1	1.4	0.5
Alameda	1,105,940	0.5	0.3	0.7	0.4
San Bernardino	622,266	0.3	0.2	0.3	1.0
Sacramento	723,600	0.6	0.4	0.8	0.5
Riverside	566,215	1.0	-- a	1.1	0.2
Totals for Counties proposing selective routing:	13,582,384	12.8	12.6	13.3	13.9
(Totals for all counties)	22,021,361	16.5	16.8	20.5	17.8
Percent representing selective routing counties	62%	78%	75%	65%	78%

a. Less than \$50,000.

Source: Department of General Services.

\$ (thousands)

Figure 2
Mandatory 911 Program Cost Projections



Costs Submitted by Local Agencies (—)

Costs to be Reimbursed by Department of General Services (---)

Figure 2 shows that the costs of the program will rise gradually as more systems are implemented. The peak that occurs in 1983-84 is almost entirely caused by the implementation of the selective routing systems in Los Angeles and Orange Counties. The costs are shown to level off in 1985, at which time all local agencies are required by law to have 911 systems in operation. From 1985 on, annual costs are estimated to fall within the range of \$25 million to \$55 million.

B. FUNDING THE STATEWIDE 911 SYSTEM

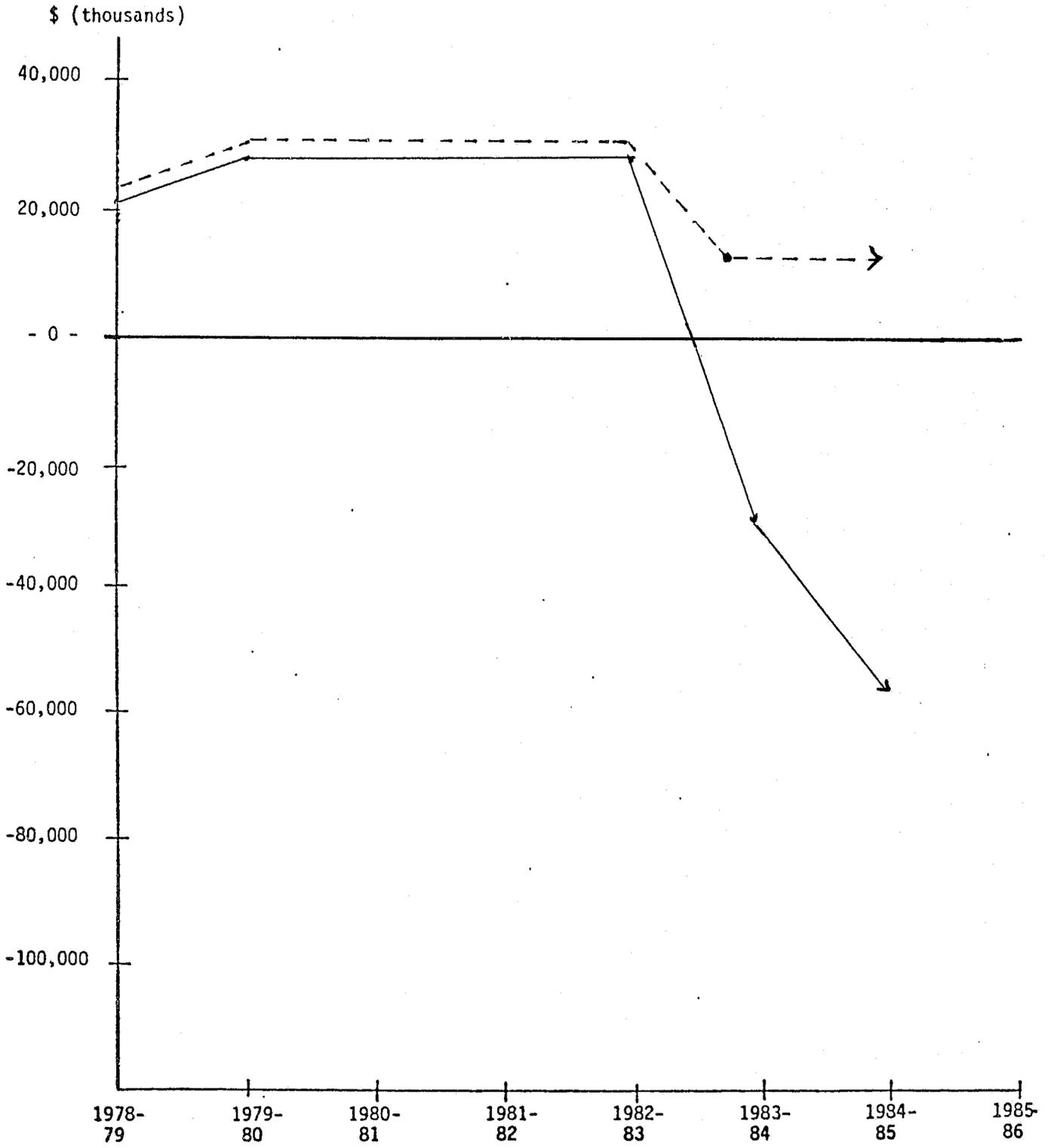
Chapter 443, Statutes of 1976 (AB 416), among other things:

1. Established a surcharge tax of .5 percent on intrastate telephone charges beginning November 1, 1977 for reimbursing local jurisdictions for implementing 911 systems mandated by Chapter 1005, Statutes of 1972 (AB 515).
2. Created a State Emergency Telephone Number Account in the General Fund to receive the tax proceeds.

Under existing law, a surcharge of .5 percent is levied against intrastate telephone charges through November 1, 1979. After that date, the State Board of Equalization is required to set a rate, not to exceed .75 percent, based on (1) the expenditures authorized in the Budget Act to be made from the State Emergency Telephone Number Account¹ and (2) the estimated intrastate telephone charges to which the surcharge will apply. The unappropriated fund balance from the prior year is not to be considered by the board in setting the new surcharge rate, although any revenue generated at the old rate during the current year will be taken into account in setting the new rate.

-
1. If the Budget Act should not appropriate an amount sufficient for paying the bills submitted to General Services by local agencies for their 911-related telephone costs, the local agencies are to be released from the obligation of providing 911 service until sufficient funds are made available.

Figure 3
Projected Account Balance Shown in Table 3



Balance Using Costs as Requested by Local Agencies (—)
Balance Using Costs as Proposed by Department of General Services (----)

Projected Balance in the State Emergency Telephone Number Account

The remainder of this chapter considers estimates of the balance in the State Emergency Telephone Number Account through the 1984-85 fiscal year based both on costs as (a) submitted by local agencies (the "high" estimate) and (b) proposed by General Services (the "low" estimate), under the following alternative surcharge plans:

1. Surcharge rate of up to .75 percent, in accordance with existing law (see Table 3). This alternative assumes the level of expenditure authorized in the Budget Act would be equal to the estimated cost for each year.
2. Surcharge rate of .75 percent after the 1979-80 fiscal year (see Table 4). This alternative assumes the authorized expenditure level would be equal to the revenue which would be generated by a surcharge rate of .75 percent.
3. Flexible surcharge rate sufficient to fully reimburse 911 costs on an annual basis without an accumulation of reserves (see Table 5). (Alternative 3 would require a change in existing law.)

1. Projected balance under existing surcharge provisions.

Figure 3 presents projected account balances under both the high and low cost estimates which would result based on estimated revenues generated by the existing surcharge. Table 3 indicates that the projected revenue under this first alternative (surcharge rate of

Table 3

Projected Balance in State
Emergency Telephone Number Account
(Based on current law: surcharge rate of
up to .75 percent with no accumulation)

(in thousands)

A. Based on Costs as Submitted by Local Agencies

<u>Year</u>	<u>One-time</u>	<u>Annual</u>	<u>Total</u>	<u>Average Surcharge Rate^a</u>	<u>Revenue</u>	<u>Balance</u>
1977-78 ^b			\$ 25	.50%	\$ 8,747	\$ 8,722
1978-79	\$ 927	\$ 572	1,499	.50	14,080	21,303
1979-80	222	1,806	2,028	.33	10,094	29,369
1980-81	855	3,550	4,405	.14	4,496	29,460
1981-82	6,542	11,645	18,187	.52	18,245	29,518
1982-83	3,187	16,787	19,974	.54	20,010	29,554
1983-84	30,422	49,606	80,028	.33	12,950	-37,524
1984-85	1,570	54,922	56,492	.75	31,695	-62,321

B. Based on Costs as Proposed by Department of General Services

<u>Year</u>	<u>One-time</u>	<u>Annual</u>	<u>Total</u>	<u>Average Surcharge Rate^a</u>	<u>Revenue</u>	<u>Balance</u>
1977-78 ^b			\$ 25	.50%	\$ 8,747	\$ 8,722
1978-79	\$ 646	\$ 300	946	.50	14,080	21,856
1979-80	196	1,464	1,660	.33	10,094	30,290
1980-81	376	2,471	2,847	.09	2,890	30,333
1981-82	3,931	6,205	10,136	.30	10,224	30,421
1982-83	2,549	8,829	11,378	.31	11,458	30,501
1983-84	12,711	23,208	35,919	.40	15,861	10,443
1984-85	573	25,436	26,009	.62	26,117	10,551

a. Current law requires that the surcharge remain at .50 percent through November 1, 1979.

b. Actuals.

Source: Projected costs are derived from information provided by Department of General Services.

Table 4

Projected Balance in State Emergency Telephone Number Account
 (Based on fixed surcharge rate of .75 percent after 1979-80)
 (in thousands)
 (see page 31)

A. Based on Costs as Submitted by Local Agencies

<u>Year</u>	<u>One-time</u>	<u>Annual</u>	<u>Total</u>	<u>Average Surcharge Rate^a</u>	<u>Revenue</u>	<u>Balance</u>
1977-78 ^b			\$ 25	.50%	\$ 8,747	\$ 8,722
1978-79	\$ 927	\$ 572	1,499	.50	14,080	21,303
1979-80	222	1,806	2,028	.58	17,551	36,826
1980-81	855	3,550	4,405	.75	24,180	56,601
1981-82	6,542	11,645	18,187	.75	25,873	64,287
1982-83	3,187	16,787	19,974	.75	27,684	71,997
1983-84	30,422	49,606	80,028	.75	29,622	21,591
1984-85	1,570	54,922	56,492	.75	31,695	-3,206

B. Based on Costs as Proposed by Department of General Services

<u>Year</u>	<u>One-time</u>	<u>Annual</u>	<u>Total</u>	<u>Average Surcharge Rate^a</u>	<u>Revenue</u>	<u>Balance</u>
1977-78 ^b			\$ 25	.50%	\$ 8,747	\$ 8,722
1978-79	\$ 646	\$ 300	946	.50	14,080	21,856
1979-80	196	1,464	1,660	.58	17,551	37,747
1980-81	376	2,471	2,847	.75	24,180	59,080
1981-82	3,931	6,205	10,136	.75	25,873	74,817
1982-83	2,549	8,829	11,378	.75	27,684	91,123
1983-84	12,711	23,208	35,919	.75	29,622	84,826
1984-85	573	25,436	26,009	.75	31,695	90,512

a. Current law requires that the surcharge remain at .50 percent through November 1, 1979.

b. Actuals.

Source: Projected costs are derived from information provided by Department of General Services.

Table 5

Projected Balance in State Emergency Telephone Number Account
(Based on flexible surcharge rate sufficient
to fully reimburse costs on an annual basis)

(in thousands)

A. Based on Costs as Submitted by Local Agencies

<u>Year</u>	<u>Total Cost</u>	<u>Average Surcharge Rate^a</u>	<u>Revenue</u>	<u>Balance</u>
1977-78 ^b	\$ 25	.50%	\$ 8,747	\$ 8,722
1978-79	1,499	.50	14,080	21,303
1979-80	2,028	.33	10,094	29,369
1980-81	4,405	-0-	-0-	24,964
1981-82	18,187	-0-	-0-	6,777
1982-83	19,974	.36	13,288	91
1983-84	80,028	2.03	80,176	239
1984-85	56,492	1.34	56,629	376

B. Based on Costs as Proposed by Department of General Services

<u>Year</u>	<u>Total Cost</u>	<u>Average Surcharge Rate^a</u>	<u>Revenue</u>	<u>Balance</u>
1977-78 ^b	\$ 25	.50%	\$ 8,747	\$ 8,722
1978-79	946	.50	14,080	21,856
1979-80	1,660	.33	10,094	30,290
1980-81	2,847	-0-	-0-	27,443
1981-82	10,136	-0-	-0-	17,307
1982-83	11,378	-0-	-0-	5,929
1983-84	35,919	.76	30,017	27
1984-85	26,009	.62	26,201	219

a. Current law requires that the surcharge remain at .50 percent through November 1, 1979.

b. Actuals.

Source: Projected costs are derived from information provided by Department of General Services.

up to .75 percent) would not cover projected costs of the high cost estimate, but could cover the low cost estimate. Under the high cost estimate (reflected in Table 3A) a deficit of approximately \$38 million would result in the 1983-84 fiscal year, and the deficit would increase to approximately \$62 million by 1984-85. Under the low cost estimate (shown in Table 3B) a surplus of approximately \$10 million would occur in the 1983-84 fiscal year, and would remain approximately the same in 1984-85.

2. Projected balance under fixed surcharge rate of .75 percent after 1979-80. Table 4 shows that the projected revenue under the second alternative would be sufficient to cover all costs based on the low cost estimate (as indicated in Table 4B) and would result in an estimated surplus of approximately \$91 million by the 1984-85 fiscal year. The projected revenue, however, would not be sufficient for defraying costs based on the high cost estimate (as reflected in Table 4A). Under the high cost estimate, a deficit of approximately \$3 million is projected for the 1984-85 fiscal year.

3. Projected balance under a flexible surcharge rate sufficient to fully reimburse costs on an annual basis. Under the third alternative, rather than having a fixed rate, the rate would be adjusted annually to a level sufficient for fully funding the estimated 911 costs for that year. Table 5A indicates the estimated rates and

revenues for fully funding 911 costs based on the high cost estimate. Table 5B indicates these estimated rates and revenues based on the low cost estimate. In either case, the rates would fluctuate during the implementation phase of the statewide 911 program. By the 1984-85 fiscal year, we would expect the rate to level off at about (1) 1.34 percent under the high cost assumption or (2) .62 percent under the low cost assumption.

C. KEY CONCLUSIONS REGARDING FUNDING REQUIREMENTS OF A MANDATORY STATEWIDE 911 PROGRAM

We believe the key findings and conclusions emerging from our analysis of funding requirements for a mandatory statewide 911 system are as follows:

1. Estimated costs of a mandatory statewide system are imprecise.
2. Under the high cost estimate, annual costs to the state would increase to a high of about \$80 million in 1983-84, and then level off at about \$55 million.
3. Under the low cost estimate, annual costs to the state would increase to a high of about \$36 million in 1983-84, and then level off to about \$25 million.
4. The revenue generated by the surcharge under existing law may not be sufficient for funding the mandatory statewide 911 program beyond 1982-83. During 1983-84, a fund balance ranging from a deficit of \$38 million to a surplus of \$10 million can be expected.

5. A fixed surcharge rate of .75 percent could provide sufficient funds for reimbursing local jurisdictions at the level proposed by General Services (the low cost estimate) but not at the level requested by the local jurisdictions (the high cost estimate).
6. A surcharge rate of up to:
 - (a) 2.03 percent would be required during 1983-84 based on the high cost estimate, with the surcharge leveling off to about 1.34 percent in subsequent years.
 - (b) .76 percent would be required during 1983-84 based on the low cost estimate, with the surcharge leveling off to about .62 percent in subsequent years.

CHAPTER III
BENEFITS OF 911

As we noted in the introduction to this report, the reasons advanced by supporters of 911 all relate to a single objective: to reduce total emergency response time (that is, the time between when an emergency occurs and the arrival of assistance). If a 911 system is not able to reduce response time, it cannot provide a benefit to the public. However, a reduction in response time, by itself, does not guarantee a tangible benefit. Actual benefit from 911 would depend on the extent to which reductions in emergency response time, if obtained, translate into tangible benefits, such as the saving of lives, reduced property damage, or quicker apprehension of criminals. The Legislature, in the initial 911 legislation, recognized these tangible benefits as the reasons for implementing 911 (Government Code Section 53100).

In order to assess the benefits of 911, then, the following questions must be addressed:

1. To what extent does 911 shorten response time?
2. Does this time savings make a difference in terms of saving lives and property and apprehending criminals?

Unfortunately, a comprehensive study of 911 that would permit these questions to be answered has never been undertaken. Thus it appears that the entire movement toward 911 has taken place without the aid of evidence documenting the tangible benefits offered by 911.

Fact Versus Opinion

Despite the lack of evidence documenting its benefit, 911 enjoys great popularity. The conflict between knowledge and opinion of 911 was aptly summarized in a May 1978 issue of Police Magazine:

"There are two ways of looking at it. From one point of view, since virtually every community in the country that has installed a 911 emergency telephone system has unequivocal praise for it -- and heart-tugging stories of lives saved because of it -- it is a scandal that more than three-quarters of the total U.S. population still lives where there is no 911 system. But from the other point of view, since virtually no community that has installed the 911 system has any data to show how well it is working or how it affects police, fire, or medical alert services, it is shocking that about 800 cities and regions in the U.S. have opted to go along with such an unproved, and at times expensive, concept."

Our own survey of officials in 20 communities with 911 systems confirmed the divergence of fact and opinion regarding 911. While a large majority of respondents expressed the belief that 911 provides a benefit to the public, none was able to support this belief with data. (See Appendix B for survey details.)

In this chapter, we discuss the potential benefits of 911, using the information that is available along with the knowledge we gained from talking to many local officials about their experiences with 911.

A. TO WHAT EXTENT DOES 911 SHORTEN EMERGENCY RESPONSE TIME?

Our analysis indicates that 911 is not likely to have a significant effect on emergency response time for three reasons:

1. It can affect only a limited portion of the total time involved in responding to an emergency.

2. That portion of response time which can be affected by 911, although not subject to measurement, is likely to be small.
3. The potential time savings offered by a 911 system may not be realized.

We discuss these three points in the following paragraphs.

1. 911 Can Affect Only a Limited Portion of Emergency Response Time.

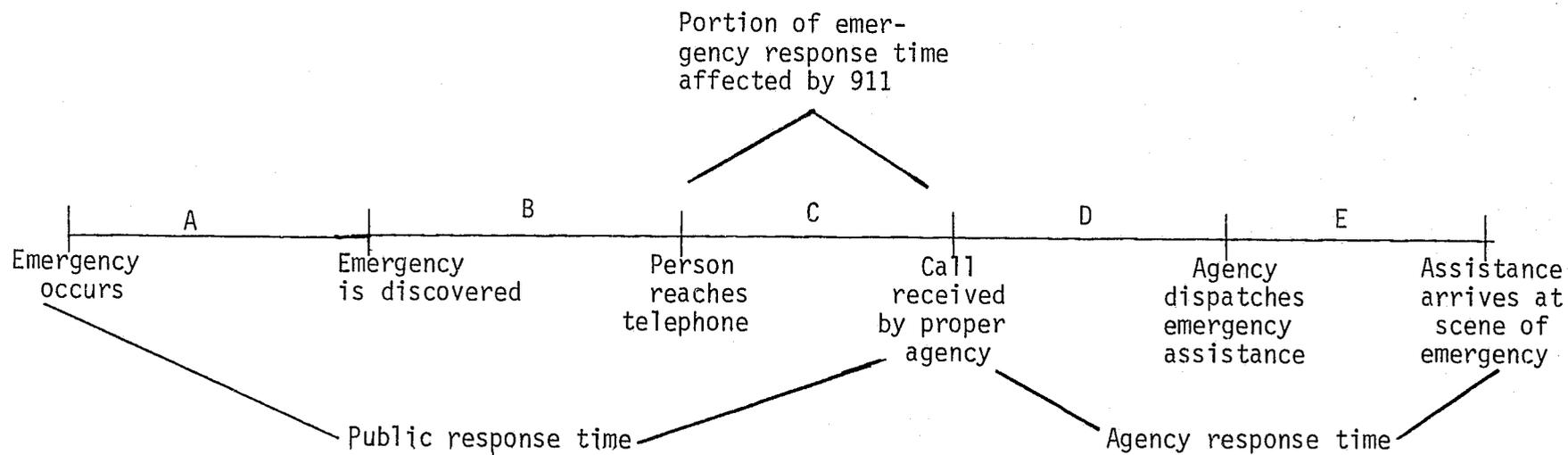
Figure 4 presents a conceptual time continuum for an emergency event. As the figure indicates, this continuum includes five distinct steps in response to an emergency. In the case of a fire, for example, some time is likely to pass before a person actually discovers the fire (segment A). After discovering the fire, the person must reach a telephone (segment B) and attempt to contact the correct fire department (segment C).

After the caller reaches the fire department, the department is now responsible for responding to the emergency. First, the person taking the call must record the information needed to determine the appropriate response and dispatch the fire truck (segment D). Then the fire-fighting unit must travel to the scene of the fire (segment E).

Only segment C can be affected by 911. A 911 system cannot enable a person to discover an emergency sooner or reach a telephone more quickly. Nor can it speed up the response of the agency once it receives the call. Thus, a 911 system is directed at only part of the time continuum involved in responding to emergencies.

Figure 4

Total Emergency Response Time Continuum



It is important not to confuse the process of implementing a 911 system with the process of consolidating the dispatching functions of different emergency response agencies, either within a single jurisdiction or within multiple jurisdictions. Advocates of 911 tend to attribute advantages of such consolidation to 911, even though there is no linkage between the two. Consolidation can be achieved without implementing 911, and any benefits resulting from consolidation should not be attributed to 911. In fact, although the 1972 legislation states that "systems shall be centralized to the extent feasible," it is our understanding that in few, if any, local jurisdictions has 911 served as a catalyst for consolidation.

2. That Portion of Response Time Which can be Affected by 911 is Likely to be Small.

Because public agencies have no means for measuring the elapsed time from when an emergency occurs until the agency receives the call reporting the emergency (this time is represented in segments A, B and C in Figure 4), there is no way of accurately measuring total public response time.

Two public surveys have been conducted in an attempt to determine the magnitude of public response time. One was in Santa Clara County, California in 1973 and the other in Orange County, Florida, in 1974. In both surveys, citizens whose emergency situations had been resolved were asked to estimate the time between (1) the moment they decided to call for assistance and (2) the time they felt their telephone report "had been taken." The results are presented in Table 6.

Table 6

Summary of Surveys on Public Emergency Response Time

Orange County, Florida

Average for law enforcement agencies	3.82 minutes
Average for fire agencies	1.60 minutes

Santa Clara County, California 1.5 - 2.7 minutes

Source: Stanford Research Institute, 911 in Florida: A System Concept, 1974, pp. 18-22.

Stanford Research Institute (SRI), which conducted one of the surveys, concludes from the two surveys that "the maximum possible time that could be saved by 911 ranges from 1.5 to 4 minutes...."

It appears, however, that SRI has overstated the potential time savings from 911, based on the survey results. The time interval covered by these surveys includes portions of segments B and D in Figure 4 as well as segment C. The portion of segment B included is that time between when the person "decided to call for help" and when he reached a telephone. The portion of segment D included in the survey responses is the interval from when the caller reached the appropriate agency to when he finished reporting the details of the emergency incident. Because the time interval estimated by survey respondents includes portions of segments B and D, the responses will tend to overstate the amount of time susceptible to reduction by 911. We believe that a more realistic interpretation of the survey results would indicate a much more modest time saving potential from 911, perhaps in the range of a minute or less.

Moreover, the time segment which can be affected by 911 represents a small part of the total response time continuum. Based on our review of data which we received from various public agencies during the course of our study, we believe that the typical interval from when a call is received by the dispatching agency until assistance arrives on the scene would range from four to nine minutes.

3. Even the Potential Time Savings from 911 May Not be Realized.

The potential time savings from 911 may not be realized because:

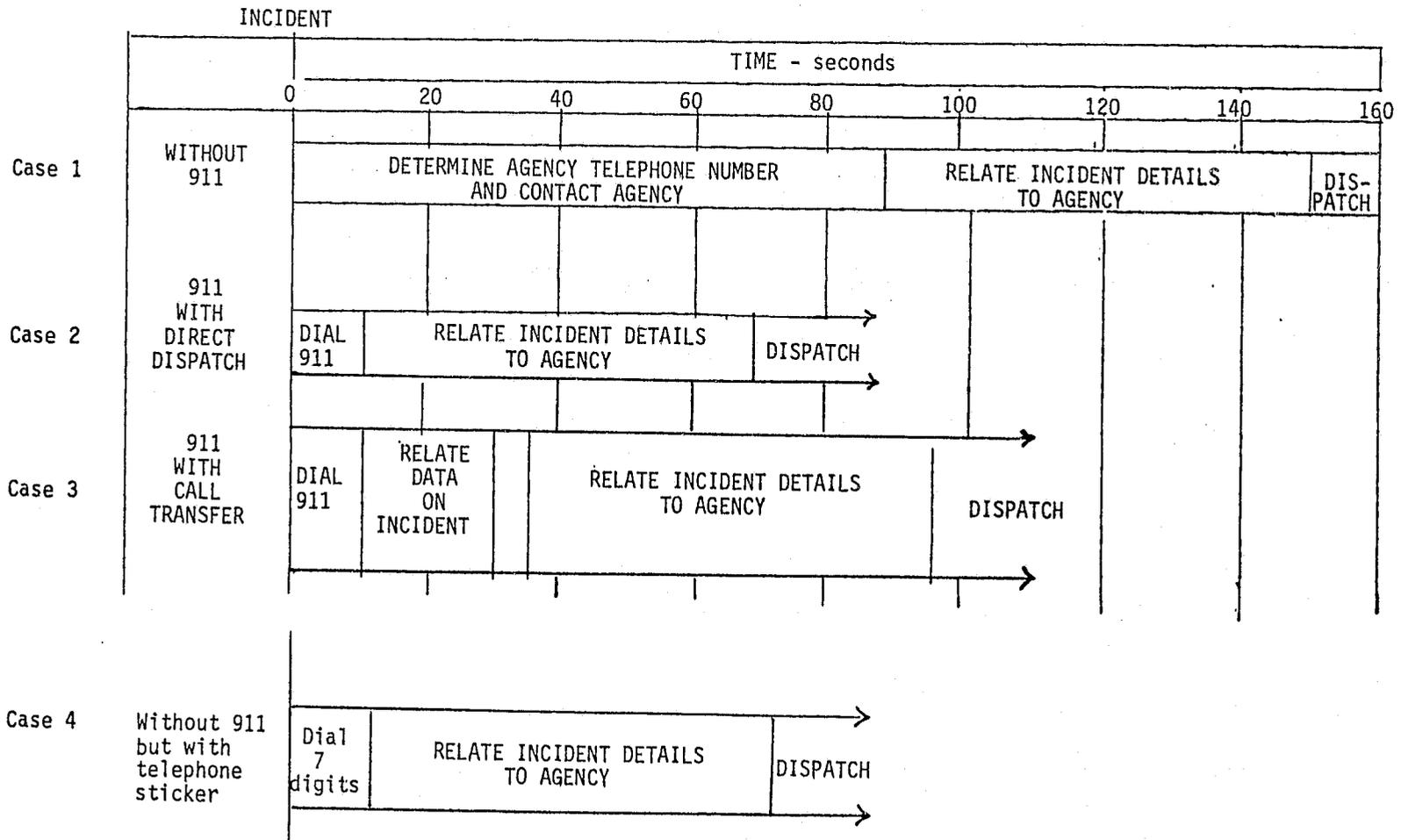
- (a) Time will be saved for only a portion of the callers.
- (b) Total response time may not be affected even when the caller reaches the appropriate agency more quickly than he would have without 911.
- (c) In certain situations 911 may actually cause an increase in response time.

(a) 911 will save time for only a limited portion of callers.

Response time will not be reduced for the caller who either knows the seven-digit emergency number to call or has it posted on or by the telephone.

Available evidence suggests that as many as one-half of all callers may either know the proper emergency number to call or have it readily accessible. The two public surveys cited above also asked citizens how they knew who to call for emergency assistance. A significant portion -- 41 percent in Orange County, Florida and 57 percent in Santa Clara County -- indicated that they either had the number conveniently posted or knew it from memory. According to information we received from representatives of local agencies during our study, a large proportion of the population does know which number to call in

Figure 5 Comparison of Average Times for Conventional and 911 Operations



(Source for Cases 1-3: Stanford Research Institute, Illinois Local Government 911 Planning Manual, June 1976, p. 33)

an emergency. Fire departments and other local public service agencies commonly distribute telephone stickers indicating the numbers of police, fire, and emergency medical agencies.

The fact that a large percentage of callers already knows the proper number to call in an emergency casts some doubt on the overall benefit of 911. Figure 5 indicates the time required to inform an agency of an emergency, both with and without 911. The first three cases are those presented by SRI to show the advantage of using 911. The fourth case is our addition to the comparison, which shows that, with a telephone sticker showing the seven-digit emergency numbers, access to the proper agency is quicker with direct dial than it is by dialing 911 if the call must be transferred to the dispatching agency (case 3), and is slower than a 911 call received by the dispatching agency (case 2) only by the few seconds required to dial an extra four digits.

911 is thought to offer a considerable time savings to citizens who have trouble identifying the proper agency in the phone book or who are referred to the wrong agency after dialing "0". These problems are in part responsible for the 90 seconds shown in case 1 of Figure 5 as the time required to find the proper number. The answers to another question asked in the two public surveys, however, indicate that the 90-second estimate may be too high. The question asked was: "How many agencies did you have to call to have your report taken?" In Orange County, Florida, 60 percent of the respondents only had to call one agency, and in Santa Clara County 82 percent reached the proper agency on the first attempt. With such a low percentage having

to go through multiple contacts, it is doubtful that 90 seconds is actually lost in contacting the appropriate agency.

(b) 911 may have no effect on total response time, even if the caller reaches the appropriate agency more quickly than by dialing the seven-digit number. Total emergency response time cannot be reduced unless dispatchers and emergency units (personnel and vehicles) are available when the emergency call is received. Many local government officials we contacted stated that their present emergency response capability is not limited by the time required for the caller to reach the appropriate agency, but rather by the lack of emergency units available for dispatch after the call is received. In fact, most representatives of local jurisdictions not having 911 who we contacted during our study stated that, in their judgment, 911 would be aimed at a comparatively strong link in the total emergency response time continuum.

c. 911 may actually increase response time in some cases.

There are three ways in which 911 can increase response time.

First, because most 911 systems use a law enforcement agency as the PSAP, fire and medical calls using 911 go first to this agency and then must be transferred to the appropriate fire or medical agency. Therefore, 911 can result in an increase in response time for calls for fire and emergency medical services, as compared to a situation in which the caller knows or has posted the proper seven-digit emergency number.

Second, the availability and ease of 911 can cause it to be overused by the public for nonemergencies or emergencies of a lower

priority. Such overuse can dilute resources available for responding to "true" emergencies.

Finally, response time could be increased if existing emergency communication systems become degraded as a result of implementing 911. Particularly in large, heavily-populated jurisdictions such as Los Angeles City and Los Angeles County, which presently have costly and complex emergency communication systems involving such features as computer-aided dispatch, officials have stated that only a carefully designed 911 system having automatic number identification (ANI) and automatic location identification (ALI) would be beneficial. (We describe ALI and ANI on page 3.) (The Department of General Services, however, has indicated that it does not intend to approve these features for reimbursement by the state.)

In summary, our analysis of the available data indicates that the time which 911 can potentially save represents a relatively small part of total emergency response time. Moreover, the potential time savings would be attainable in only some cases. Specifically, response time can be reduced by 911 only in situations where (1) the caller does not know the number of the appropriate agency or have it posted for convenient use, (2) the time required to transfer a call to the appropriate agency (when such a transfer is necessary) does not offset the time saved by 911, and (3) the agency has emergency personnel and vehicles available to respond immediately. In other cases, which we believe account for the bulk of emergencies, 911 may not result in any actual reduction in response time.

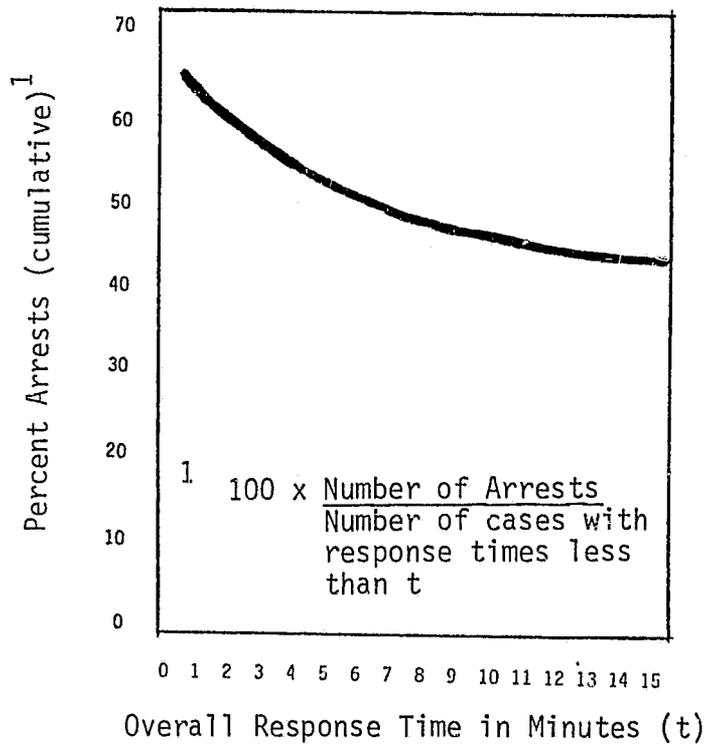
B. DOES THE TIME SAVED BY 911 MAKE A DIFFERENCE?

Most fire and medical emergencies are extremely time critical and could be expected to benefit from even relatively small time savings. On the other hand, most police emergencies are not time critical to the extent that 911 would be likely to make a difference in the outcome of the emergency (for example, the apprehension of a burglar).

Police Emergencies

The graph shown in Figure 6 relates the percentage of arrests to police response time. The federal Office of Telecommunications Policy used this graph to substantiate its claim that 911, by reducing response time, would increase the likelihood of making an arrest. However, according to the figure, a time savings from 911 (which is relatively small) would appear to have only a minor impact on arrests. For example, the figure indicates that if 911 shortened response time from seven to six minutes, one would expect only about a 1 percent increase in the percentage of arrests.

Figure 6
Arrests in Relation to Response Time



(Source: Task Force Report: Science and Technology,
The President's Commission on Law Enforcement and
Administration of Justice, 1967.)

A more recent study of police response time in Kansas City provides further evidence that a one-minute change in response time would have practically no impact on apprehending criminals.¹

These conclusions were supported by the responses of those we interviewed in the course of this study. Among respondents of the three types of emergency agencies we surveyed (law enforcement, fire, and medical), those representing law enforcement agencies offered the fewest examples of time-critical emergencies in which 911 may have been beneficial. In fact, some law enforcement personnel offered examples from fire and medical, rather than police, emergencies. On the basis of the survey data, it seems that police emergencies are not typically time critical enough for a one minute potential savings from 911 to be beneficial.

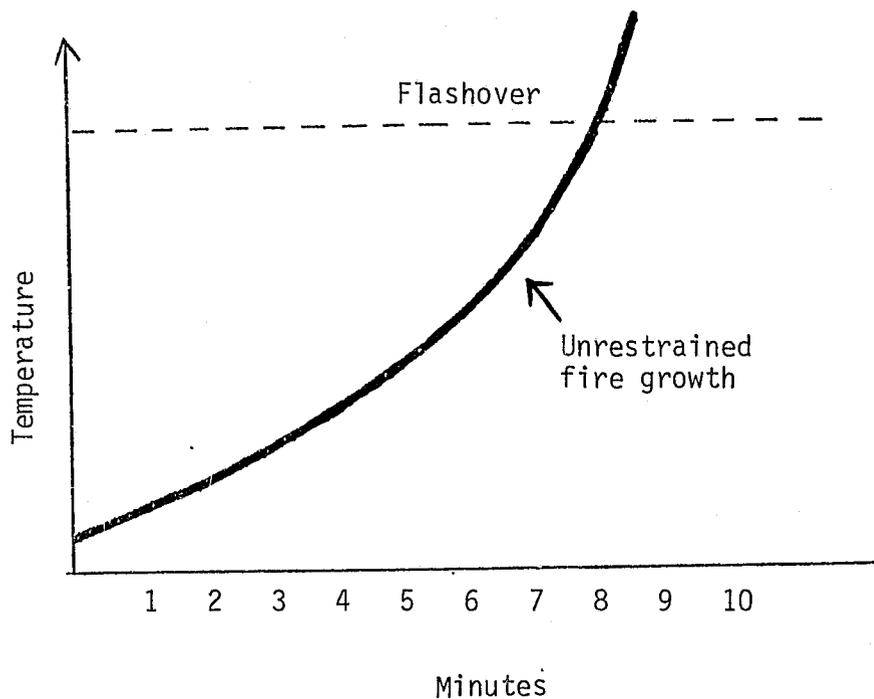
Fire Emergencies

The rate at which a fire grows indicates that a one minute reduction in response time (within the relevant range) could be very important in reducing fire damage. A fire typically spreads slowly until the temperature rises to the point at which surrounding materials ignite spontaneously. This is called "flashover." Once flashover occurs, fire temperatures increase much more rapidly. Figure 7 shows that flashover may take place after about 7-8 minutes, and that fire temperature begins increasing rapidly after about 4 minutes. With each minute after the fourth, the fire gets much bigger and presumably

1. Kansas City, Missouri, Police Department. Response Time Analysis Executive Summary, 1977, p. 11.

causes greater damage. Shortening response time by one minute, from six minutes to five minutes, is estimated to translate to an 11 per cent reduction in property damage.¹

Figure 7
Relationship of Fire Growth to Time



(Source: America Burning, the Report of the National Commission on Fire Prevention and Control, 1973, p. 173)

In our survey of existing 911 systems, representatives of fire agencies consistently emphasized the benefit of trimming even 30 seconds off response time. However, some fire officials also complained that response time had increased as a result of 911, because emergency calls must be transferred through the central PSAP.

1. Stanford Research Institute, 911 in Florida: A System Concept, 1974, pp. C-14-16.

Medical Emergencies

Emergency medical service is probably the most time critical of the three kinds of emergencies. A very common type of medical emergency is a cardiac arrest, when the victim is in urgent need of cardio-pulmonary resuscitation (CPR). The importance of responding to a cardiac arrest within the first several minutes of its occurrence can be seen from Table 7. According to the table, reducing emergency response time from 5 to 4 minutes increases the chances of recovery from 25 to 50 percent. Nearly all of the emergency medical personnel we interviewed cited cardiac arrest as an example where 911 might provide tangible results if it reduced response time.

Table 7
Relationship Between Emergency Response Time and
Chance of Recovery from Cardiac Arrests

<u>Delay (minutes)</u>	<u>Chance of Recovery (%)</u>
1	98
2	92
3	72
4	50
5	25
6	11
7	8
8	5
9	2
10	1
11	.1
12	.01

(Source: "Paramed: A Citizen Emergency Response Training," Salt Lake City Fire Dept. Based on data provided by the American Red Cross.)

C. CONCLUSIONS REGARDING THE BENEFITS OF 911

1. No data are available which demonstrate that 911 actually shortens response time and provides tangible benefits.

2. There is near unanimous praise for 911 among communities having 911 in operation, although supporters base their praise, not on data, but rather on individual, publicized cases and on supposition.

3. Local government representatives in California jurisdictions which have not yet implemented 911 commonly expressed skepticism of the benefit of 911, and expressed concern that it might degrade their existing emergency communication systems. Many believe that 911 would affect only a minor and relatively strong link in the total emergency response system and, therefore, funds applied for this purpose would be misdirected.

4. Only a limited portion of the total emergency response time continuum would potentially be affected by 911. Use of 911 could potentially trim response time slightly, but only in situations where the caller neither knows the proper number nor has it conveniently posted. In some cases, 911 would actually increase response time. In others, potential time savings would be negated because emergency units are not available to respond.

5. All emergency calls in the typical 911 system are routed through the law enforcement agency. Consequently, the limited potential benefit of 911 may not be realized in crucial fire or emergency medical situations as a result of the time required to transfer the calls to the appropriate agency.

6. Because fire and medical calls tend to be much more time critical than police calls, any time savings from 911 would be of more value in fire and medical emergencies than in police emergencies.

CHAPTER IV
ALTERNATIVE COURSES OF ACTION

In this chapter we discuss the following three major courses of action which we believe are available to the Legislature:

1. Continue mandating statewide implementation of 911. Under this "mandatory 911" approach, all local agencies would be required to implement 911 systems and would be reimbursed in accordance with the provisions of Chapter 443, Statutes of 1976 for the additional telephone and incremental costs which they incur.

2. Modify existing legislation to provide partial reimbursement to local agencies choosing to implement 911 systems. Under the "permissive 911" alternative, no local agency would be required to implement a 911 system. Those agencies electing to do so would be reimbursed on a formula basis for a portion of their costs.

3. Repeal existing 911 legislation. Under the "repeal 911" option, local agencies would be free to implement a 911 system, as Monterey County has, but would neither be required to implement 911 systems nor be reimbursed for doing so.

We present the advantages and disadvantages of these three alternatives in the following sections. In preparing this report, we considered a fourth alternative: mandated 911 with formula reimbursement. However, we do not believe this would be a viable alternative. Under a formula procedure, the amount of reimbursements would depend on pre-specified criteria (for example, population served) and therefore, the individual local governments would not be reimbursed

for the exact costs they are required to incur. Consequently, if a formula were intended to reimburse total costs, it would, as a practical matter, overcompensate some jurisdictions and undercompensate others. We believe that a formula reimbursement policy should be considered only under a permissive, partial reimbursement program in order to avoid (1) overcompensating some local governments while (2) requiring others to spend their own funds on a program which they otherwise might not choose to implement.

A. MANDATORY 911

Advantages

The principal advantage of the mandatory 911 alternative, as compared to the other courses of action which we discuss, is that a single, statewide emergency telephone number would be available in California. A mandatory program is the only way to ensure that 911 is implemented in every California jurisdiction. In so doing, the mandatory approach would enlist California in the national effort to achieve a single, nationwide emergency telephone number. No other approach to reducing emergency response time could help achieve this national objective.

A statewide 911 system offers two notable advantages:

1. There would be no question as to whether residents of a particular community are served by 911. Under a nonmandatory approach, certain jurisdictions would implement 911 while neighboring jurisdictions would not. Such a situation could be confusing to the public, particularly in metropolitan areas having many jurisdictions. Furthermore, it would be difficult for local agencies to publicize the availability

of 911 (e.g., via television or newspaper advertisements or bumper stickers) without misleading the citizens of neighboring jurisdictions where 911 service is not available.

2. Persons traveling throughout California could request emergency service by dialing "911". Travelers are more likely to benefit from 911 because it is extremely unlikely that they would either know the number of the appropriate agency to call in an emergency or have it posted in a convenient location. A citizen of California is only able to promote the adoption of 911 in his own community, not in other areas he might visit where it could benefit him the most.

Rural communities, in particular, may not have the inclination or sufficient funds available to implement 911 systems. Yet these areas may attract many visitors and vacationers who might benefit most from such systems. A mandatory statewide program is the only way to guarantee that these areas would implement 911.

Disadvantages

The "mandatory 911" alternative has the following disadvantages:

1. Local agencies would be required to implement 911 systems even when such systems would:

- (a) offer no benefit;
- (b) not be aimed at the "weakest link" in existing emergency communication systems; or
- (c) not be the most economical method for improving emergency response time.

(a) 911 may not result in tangible benefits to the public, and in certain circumstances could actually increase emergency response time. There are wide variations in the type and degree of sophistication of local government emergency communication systems. In the course of our study, officials representing several metropolitan jurisdictions expressed the belief that the addition of a 911 system would probably not enhance the existing system to a significant extent and might even degrade it. Furthermore, as we noted in Chapter III, 911 may sometimes delay calls to fire departments by directing them first to the law enforcement agency or central PSAP.

(b) 911 may not be aimed at the weakest link in an emergency communication system. As Figure 4 on page 37 illustrates, emergency response time consists of five segments, only one of which can be affected by 911. Reductions in response time may be achieved more efficiently by making improvements in one of the other segments. For example, less sophisticated systems may achieve greater reductions in response time per dollar spent by computerizing their dispatch procedures rather than by implementing 911. Some jurisdictions may not have sufficient resources (e.g., policemen or firemen) for responding to emergency calls and could improve response time significantly only by adding more policemen or firemen.

Most officials we contacted in local jurisdictions which have not implemented 911 stated that 911 is aimed at what they believe is already the strongest part of their emergency communication system -- the reporting of the emergency incident. Consequently, they indicated

that other approaches, such as adding patrolmen, would be a more effective way to reduce response time. Respondents to our survey of jurisdictions having 911 were more inclined to see a benefit in 911 for their particular systems. However, many of them stated that 911 is not aimed at the weakest link in their system and suggested alternative approaches, including increasing the use of street fire box reporting, using computerized dispatch, adding patrolmen, adding dispatchers, and providing more emergency medical training to the general public.

(c) 911 may not be the most economical method for improving emergency response time, even when it does address the "weakest link."

For example, telephone stickers showing the appropriate seven-digit emergency numbers provide an alternative means for enabling people to know what number to dial in an emergency. Consequently, equipping each telephone with a sticker showing the number to call for police, fire, and emergency medical assistance would eliminate the major portion of the problem which 911 addresses. Many local agencies in California presently distribute such stickers to telephone subscribers at no charge. If stickers could be provided in a systematic manner in all jurisdictions, and if people could be persuaded to use them (a problem common to 911 as well), it would appear that a significant portion of the potential benefits claimed for 911 could be realized at only a fraction of the cost.

2. Local agencies lack sufficient incentive for designing 911 systems in the most economical manner. A total state reimbursement policy would encourage local agencies to propose systems having

greater telephone and incremental costs than the systems agencies would adopt if they were required to pay a portion of these costs.

(a) Telephone costs. Selective routing uses equipment to do what is done by people in a basic system -- route calls to the PSAP of the appropriate local jurisdiction. Local officials believe that proposed equipment (telephone) costs are more likely to be reimbursed than are proposed personnel (incremental) costs. Some local officials have indicated that selective routing was chosen in certain cases primarily for this reason (that is, because it would probably reduce local costs), even though it would result in significantly greater total 911 costs.

(b) Incremental costs. A review of a selected sample of 911 plans submitted by local jurisdictions indicates that many jurisdictions will be requesting reimbursement for some nontelephone costs (such as for additional office space or personnel) that (1) are not essential for effective implementation of 911 or (2) these jurisdictions would be likely to incur even without 911.

3. The state would be unable to reimburse local governments in an equitable manner. Ideally, under a total reimbursement policy, each individual local jurisdiction would be reimbursed for the exact amount of its additional cost which is both necessary and directly attributable to implementing 911. However, as a practical matter, it would be difficult, if not impossible, for the state to equitably reimburse local governments on this basis because:

(a) No criteria exist for deciding which incremental

costs are a necessary part of the system mandated by the Legislature.

- (b) No criteria exist for deciding when advanced 911 telephone equipment features are warranted.
- (c) It would be impossible to establish valid reimbursement criteria which could be applied in a consistent yet effective manner.

(a) There are no criteria for deciding which incremental costs are necessary. In the absence of criteria, General Services has recommended that only a small portion -- about 17 percent -- of incremental cost requests be approved for reimbursement. (The Legislative Counsel advises us that the state is not legally obligated to reimburse local jurisdictions for incremental costs -- see Appendix D.) As a result, it is probable that, under existing law, local governments would be required to finance a portion of the incremental costs they incur in implementing a 911 system.

(b) There are no criteria for deciding when advanced telephone features are warranted. In the absence of such criteria, General Services has made the policy decision that no local jurisdictions will be reimbursed for certain advanced equipment. Some local officials have stated that without these features, 911 offers no benefit and may even degrade the existing emergency communication system.

(c) It would be impossible to establish criteria for approving local agency reimbursement requests which could be applied in a consistent, yet effective manner. Two hundred fifty separate 911

implementation plans were submitted by the local jurisdictions to General Services for review and approval, in accordance with existing law. Each plan is intended to satisfy the unique emergency communication requirements of a particular community. No one we contacted was able to suggest criteria for evaluating the validity of reimbursements requested by the local agencies.

In the absence of detailed reimbursement criteria, we believe it would not be possible to implement 911 in a cost-effective manner on a mandatory, statewide basis. If the Legislature decides to proceed with a mandatory, fully reimbursable 911 program, it would be faced with the dilemma of either:

- (a) Allowing local jurisdictions to be reimbursed for the incremental costs and advanced telephone equipment features (e.g., selective routing) which they state they require, at an extremely high annual state cost, or
- (b) Imposing standards which would prohibit some local jurisdictions from being reimbursed for 911 features they believe they require. In this case, (1) 911 could have little or no beneficial effect, or could even have a negative effect on existing emergency communication systems, or (2) local governments could be forced to incur the costs of installing the desired features at their own expense.

B. PERMISSIVE 911

A "permissive 911" program providing partial reimbursement on a formula basis to those local agencies choosing to implement a 911 system would avoid many of the disadvantages of the "mandatory 911" alternative.

Advantages of "Permissive 911" in Relation to "Mandatory 911"

1. Local agencies would be more inclined to implement 911 only when it is considered to be a cost-effective method for reducing emergency response time.
2. Local agencies would have an incentive for designing 911 systems in an economical manner.
3. The reimbursement process would be much simpler to administer and, therefore, could be applied in a more consistent and equitable manner.

By using a formula, the state would no longer have to review each cost element of every proposed 911 system, and disputes between local agencies and the state regarding the reimbursement of both incremental and telephone costs would be avoided. Local governments would be reimbursed on the basis of predetermined factors such as population and the number of agencies participating in the 911 system.

Although the permissive approach with reimbursement by formula offers some advantages when compared to the existing mandatory program, it also has some disadvantages.

Disadvantages of "Permissive 911"

The primary disadvantage of the permissive 911 alternative, as compared with the mandatory 911 alternative, is that it would not provide for a single, statewide emergency telephone number.

A second disadvantage is that it would probably not be possible to devise a formula which would be considered fair by all. Even if agreement could be reached on reimbursement objectives (for example, to reimburse all jurisdictions for at least 70 percent, but none for more than 100 percent, of their 911 costs) it may not be technically possible to achieve the intended objectives through the use of a formula.

We believe that if the formula concept were adopted, it should (1) not fully reimburse local agencies for their 911 costs, yet (2) provide for a significant and roughly consistent proportion of additional costs incurred by local agencies as a direct result of implementing 911 systems.

REPEAL 911

By repealing the 911 legislation, the Legislature would avoid all of the disadvantages of the mandatory 911 program alternative. Local agencies could install 911 systems at their own expense if they felt the full costs were justified by the benefit of 911.

The only significant disadvantage of this alternative, as compared with the mandatory 911 alternative, is that it would not automatically result in a single statewide emergency telephone number.

CHAPTER V
RECOMMENDATIONS

We recommend that the legislation requiring local governments to implement 911 systems be repealed.

Based on our analysis, we conclude that local jurisdictions should not be required by the state to implement 911 for the following reasons:

1. It cannot be demonstrated that sufficient tangible benefits would result from 911 to warrant mandating the system statewide, as we note in Chapter III.

2. As we note in Chapter IV, a mandatory program has the following disadvantages:

- (a) Local agencies would be required to implement 911 systems even when such systems would offer no benefit or would not be the most economical method for improving emergency response time -- the ultimate objective of 911.
- (b) Local agencies would lack incentive for designing 911 systems in the most economical manner, resulting in a waste of public funds.
- (c) It is most unlikely that the state would be able to reimburse local agencies in an equitable manner.

We further conclude that local jurisdictions should not be subsidized by the state for implementing 911. Where 911 is considered

to be a cost-effective means for reducing emergency response time, it can be implemented without state assistance. This is borne out by the following factors:

1. Approximately 750 systems have been implemented throughout the United States using local funds.
2. In California it appears that the state mandate has delayed implementation of 911 systems in a number of communities which we understand were planning to install such systems using local funds, but deferred doing so in anticipation of receiving state reimbursements for this purpose.
3. Many local officials we contacted during our study expressed the opinion that public pressure would cause certain jurisdictions to implement 911 even if such systems were not reimbursed by the state.

All of the above factors, coupled with the existence of a far less costly alternative (telephone stickers) for reducing the time required to reach emergency service agencies, lead us to recommend that local jurisdictions should not be required or subsidized to implement 911 systems.

We recommend that, if existing 911 legislation is not repealed, it be modified to provide for (1) implementation of 911 on a permissive, rather than mandatory, basis and (2) partial reimbursement to local governments on a formula basis.

If the Legislature decides to continue promoting the implementation of 911, we believe a permissive program, in which local agencies would be partially reimbursed on a formula basis, would be preferable to the existing mandated program for the following reasons:

1. Local governments would be more inclined to implement 911 only when it is a cost-effective method for reducing emergency response time.
2. Local agencies would have an incentive for designing 911 systems in an economical manner.
3. The reimbursement process would be simpler, more equitable and easier to administer.

We recommend that, if the existing 911 legislation is repealed, the funds currently in the State Emergency Telephone Number Account be used to defray a portion of the future telephone costs incurred by those local agencies which have implemented or ordered 911 systems since the mandate became effective.

According to General Services, as of July 11, 1979, forty-seven 911 systems have been implemented by local jurisdictions and 53 more systems have been ordered since the mandate became effective. Agencies currently operating 911 systems have already been reimbursed or are in the process of being reimbursed for the telephone costs incurred since they began operating their systems.

There is currently about \$21.5 million in the State Emergency Telephone Number Account. If the 911 legislation is repealed, we believe a procedure should be developed for using these funds to defray a portion of the future costs of those eighty 911 systems. We suggest

that, at a minimum, the funds be used to pay each agency for either its portion of (1) 911-related telephone costs for one year, or (2) any basic termination charges which would result if the agency elects to discontinue or cancel its order for 911 service. ("Basic termination charges" are included in some contracts between the telephone companies which supply 911 equipment and the local agencies which lease the equipment to allow telephone companies to recover the costs incurred in the development and installation of a 911 system.) This would not cost more than \$3 million. The balance of the funds remaining in the account could then be used either for providing additional reimbursements to the local agencies for their 911 costs or to provide for a temporary reduction in intrastate telephone charges as a means of returning to the citizens the unused portion of funds acquired for the 911 program.

SCHEDULE OF APPENDICES

APPENDIX A Existing 911 Systems

Part 1: California

Part 2: United States

APPENDIX B Sources of Information

Part 1: Telephone Survey of Local Jurisdictions with 911 Systems
in Operation

Part 2: Entities Whose Representatives We Met With During the Study

Part 3: Selected Bibliography

APPENDIX C Comparison of Amounts Requested by Local Agencies for 911 Costs with Amounts Proposed by General Services

APPENDIX D Legislative Counsel's Opinion Regarding State Obligation to Reimburse Incremental Costs

APPENDIX A
EXISTING 911 SYSTEMS

<u>Part 1: California (February 1979)</u>	Population	Date Implemented
City of Avalon	1,720	6/78
City of Benicia	14,942	6/75
City of Dunsmuir	2,400	1/73
City of Gilroy	42,850	3/69
City of Gustine	2,980	3/70
City of Lindsay	7,000	1/75
City of Monterey	139,430 ^a	1/75
City of Mount Shasta	3,700	1/73
City of Pacifica	37,000 ^b	9/74
City of Palo Alto	120,600 ^b	2/76
City of Rancho Santa Fe	2,500	12/70
City of Reedley	10,500	10/78
City of Rio Vista	6,312 ^c	12/76
City of Salinas	132,085 ^c	1/75
City of San Clemente	24,700	9/70
City of Santa Clara	84,600	7/74
City of Sunnyvale	106,400	11/72
City of Tracy	20,000	3/75
City of Vallejo	72,742	11/76
City of Yreka	27,000	1/73
County of Alameda	123,600	7/78
Alameda	75,600	4/70
Albany	15,250	7/78
Berkeley	112,100	7/78
Emeryville	4,490	7/78
Fremont	120,600	7/78
Hayward	97,900	7/78
Livermore	49,150	7/78
Newark	30,900	7/78
Oakland	327,800	7/78
Piedmont	10,500	7/78
Pleasanton	34,400	7/78
San Leandro	69,400	7/78
Union City	34,250	7/78
East Bay Regional Parks	-	7/78
U.C. Berkeley	-	7/78
County of San Benito	21,750 ^d	7/75
County of Santa Barbara	140,300	2/79
Carpinteria	10,050	2/79
Guadalupe	3,070	2/79
Lompoc	25,350	2/79
Santa Barbara	73,800	2/79
Santa Maria	25,550	2/79
 TOTAL	 2,265,271	

- a. Includes 6 cities and part of Monterey County served by PSAP.
- b. Includes City of Mountain View served by PSAP.
- c. Includes 6 cities and part of Monterey County served by PSAP.
- d. Includes cities of Hollister and San Juan Bautista served by PSAP.

APPENDIX A
EXISTING 911 SYSTEMS IN THE USA
(December 1978)

Part 2: United States (December 1978)

<u>State</u>	<u>Population</u>	<u>Number of Public Safety Answering Points (PSAPs)</u>	<u>Current Number of Local Jurisdictions Participating in a 911 System</u>	<u>Population Served by 911 System</u>	
				<u>Number</u>	<u>Percentage of State Population</u>
Alabama	3,742,000	34	51	2,433,500	65%
Alaska	403,000	8	30	311,250	77
Arizona	2,354,000	4	21	462,800	20
Arkansas	2,185,000	3	4	84,500	4
California ^a	22,294,000	43	55	2,265,271	10
Colorado	2,670,000	13	45	1,490,500	56
Connecticut	3,099,000	33	52	1,248,500	40
Delaware	583,000	1	3	14,000	2
Washington, D.C.	674,000	1	1	674,000	100
Florida ^b	8,594,000	21	103	2,352,000	27
Georgia ^c	5,084,000	7	30	929,000	18
Hawaii	897,000	0	0	0	0
Idaho	878,000	7	19	149,500	17
Illinois ^d	11,243,000	34	103	4,719,100	42
Indiana	5,374,000	36	63	2,457,398	46
Iowa	2,896,000	15	45	505,900	17
Kansas	2,348,000	18	44	316,830	13
Kentucky	3,498,000	7	13	150,500	4
Louisiana ^e	3,966,000	10	13	603,495	15

a. California enacted Chapter 1005, Statutes of 1972, requiring local agencies to establish 911 systems.

b. Florida enacted Chapters 74-357, Laws of 1974, requiring a state plan.

c. Georgia enacted PP. 1040, 1044, Acts of 1977, requiring a state plan.

d. Illinois enacted Public Act 79-1092, 1975 requiring local agencies to establish 911 systems.

e. Louisiana enacted No. 94, Acts of 1974, requiring local agencies to establish 911 systems "if technologically compatible with the existing local telephone network."

State	Population	Number of Public Safety Answering Points (PSAPs)	Current Number of Local Jurisdictions Participating in a 911 System	Population Served by 911 System	
				Number	Percentage of State Population
Maine	1,091,000	5	15	99,000	9
Maryland	4,143,000	8	16	1,690,700	41
Massachusetts ^a	5,774,000	48	55	3,524,958	61
Michigan	9,189,000	12	67	3,573,500	39
Minnesota ^b	4,008,000	12	42	349,400	9
Mississippi	2,404,000	30	52	881,095	37
Missouri	4,860,000	12	25	436,256	9
Montana	785,000	10	15	205,000	26
Nebraska	1,565,000	42	160	1,277,280	82
Nevada	660,000	7	10	67,500	10
New Hampshire	871,000	2	2	140,000	16
New Jersey	7,327,000	11	32	1,205,000	16
New Mexico	1,212,000	6	18	547,000	45
New York ^c	17,748,000	16	56	15,353,500	87
North Carolina	5,577,000	5	12	541,100	10
North Dakota	652,000	2	4	110,000	17
Ohio	10,749,000	12	32	564,000	5
Oklahoma	2,880,000	11	16	339,000	12

- a. Massachusetts enacted No. 192, Laws of 1969, requiring telephone companies to make 911 available when local agencies request to contract for it.
- b. Minnesota enacted Chapter 311, Laws of 1977, requiring local counties to establish 911 systems.
- c. The Public Service Commission of New York promulgated Regulation No. 26443 in 1973 requiring telephone companies to make 911 available when local agencies request to contract for it.

State	Population	Number of Public Safety Answering Points (PSAPs)	Current Number of Local Jurisdictions Participating in a 911 System	Population Served by 911 System	
				Number	Percentage of State Population
Oregon	2,444,000	11	30	125,700	5%
Pennsylvania ^a	11,750,000	25	423	4,151,700	35
Rhode Island	935,000	0	0	0	0
South Carolina	2,918,000	5	20	268,700	9
South Dakota	690,000	9	24	317,000	46
Tennessee	4,357,600	55	110	1,795,100	41
Texas	13,014,000	20	58	1,972,492	15
Utah	1,307,000	3	23	709,000	54
Vermont	487,000	0	0	0	0
Virginia ^b	5,148,000	4	21	451,000	9
Washington	3,774,000	17	65	1,552,075	41
West Virginia	1,860,000	4	9	101,000	5
Wisconsin ^c	4,679,000	11	69	527,000	11
Wyoming	424,000	26	115	365,400	86
TOTAL	218,064,600	736	2,291	64,408,500	30%

- a. Pennsylvania enacted Act 42, Session of 1978, requiring the submission of a 911 system plan from the state to the Legislature within 18 months.
- b. Virginia passed Senate Joint Resolution No. 87 of 1977 encouraging local agencies to establish 911 systems.
- c. Wisconsin enacted Chapter 392, Laws of 1977, requiring local agencies to establish 911 systems.

APPENDIX B
SOURCES OF INFORMATION

Part 1: Telephone Survey of Local Jurisdictions with 911 Systems in
Operation

Survey Methodology

The survey sample consists of twenty jurisdictions -- thirteen from outside of California and seven from within the state. We chose to survey jurisdictions where 911 systems (1) have been operating for several years and (2) serve a large population. Table B-1 lists the jurisdictions surveyed, and shows when each 911 system was implemented and the population served by 911.

We telephoned a representative of 911 communication system operations in each jurisdiction we surveyed, advising him that a questionnaire from us would be arriving by mail in the next few days. (A copy of the questionnaire is shown as Exhibit 1.) After our questionnaire was received, we telephoned the representative again and recorded the responses during the second telephone conversation.

Next, we telephoned the representatives of emergency medical, law enforcement, and fire agencies in each jurisdiction surveyed (as identified in the response to question 5). During our conversations with these persons we completed a second questionnaire. (A copy of the second questionnaire is shown as Exhibit 2). We contacted a total of 64 people in the 20 jurisdictions. Some communication system representatives chose to respond for certain emergency agencies and some individuals designated by the communication representative responded for both fire and medical services.

Table B-1
LOCAL JURISDICTIONS SURVEYED

<u>Jurisdiction Surveyed</u>	<u>Date of 911 Implementation</u>	<u>Estimated Population Served by 911</u>
1. New York City	July 1969	9,500,000
2. Chicago, Illinois	September 1976	3,500,000
3. Seattle, Washington	April 1971	500,000
4. Denver, Colorado	May 1971	1,000,000
5. Salt Lake City, Utah	July 1975	610,650
6. Omaha, Nebraska	May 1970	500,000
7. Washington, D.C.	January 1972	725,000
8. Birmingham, Alabama	July 1970	750,000
9. Baton Rouge, Louisiana	September 1970	378,588
10. Boston, Massachusetts	April 1976	650,000
11. Detroit, Michigan	September 1973	2,000,000
12. Buffalo, New York	July 1969	600,000
13. Philadelphia, Pennsylvania	April 1974	1,900,000
14. Alameda County, California	July 1978	1,100,000
15. Pacifica, California	October 1974	37,000
16. Vallejo, California	November 1976	73,000
17. Sunnyvale, California	October 1972	106,000
18. Monterey County, California	January 1975	271,000
19. Palo Alto, California	February 1976	121,000
20. Santa Clara, California	July 1974	85,000

EXHIBIT 1

911 SURVEY OF COMMUNICATION DIRECTORS

Name _____ Agency _____
 Title _____ Public Jurisdiction _____
 Phone Number _____

1. When did your 911 system become operational?

_____ Month _____ Year

2. What is the total population served by your 911 system?
 (If the exact figure is not available, please estimate.)

_____ Population Size Estimated Yes No

3. Please indicate whether your 911 system costs were more or less than expected for:

	911 Costs More	911 Costs Same	911 Costs Less
Equipment			
Personnel			
Other Costs			
Total Costs			

If any items cost much more or less than expected, please specify main reasons for the difference:

4. Please indicate the dominant party which influenced the decision to implement 911.

- Telephone Company Local Law Enforcement
 Local Fire Service Local Citizens
 Other (specify) _____
 Unknown

5. Please indicate who we should telephone to discuss how your 911 system affects response times for:

	Name and Title	Telephone Number (Area Code)
Emergency Medical Services		
Law Enforcement		
Fire Services		

Major Findings

The major findings of our survey derive from questions 3, 4, and 7 of the survey of 911 system users: (The tabulated responses to those questions appear in Exhibit 3.)

- . A majority of respondents stated that 911 reduces response time (69%) and provides tangible benefits (73%). (See questions 3 and 4a.) However, none was able to substantiate these statements with data. In all cases, these statements were opinions based on individual, publicized cases and on the assumption that if 911 reduces response time, then it must provide a tangible benefit.
- . A small but significant portion of respondents stated that 911 either increases or has no effect on response time (20%) and that 911 offers a negative benefit or no benefit (14%). (See questions 3 and 4a.) Reasons given by those who stated that 911 does not reduce response time or provide a service benefit included that the need to transfer calls from the PSAP to the dispatching agency causes delays, and that 911 will save time only if responding units are available.
- . A majority of respondents (76%) felt that 911 was a cost-effective means of reducing response time. (See question 7.) However, several stated that 911 does not address the weakest link in emergency communication systems, but that the money spent on 911 would not be enough to have a significant effect on response time if spent in another manner. (It should be noted that these respondents were speaking of the costs of a basic 911 system.)

- . A small but significant portion of respondents (16 %) stated that 911 was not the best use of funds. Other uses which they stated as having a greater impact on response time include adding patrolmen, adding dispatchers, computerizing dispatch, and providing more emergency medical training to the general public.

Other Findings

Exhibit 4 presents a summary of the responses to questions 3 and 4 of the survey of communication directors (see Exhibit 1).

Exhibit 5 presents a summary of the responses to questions 5 and 6 of the survey of 911 system users (see Exhibit 2).

EXHIBIT 3
RESPONSES TO SURVEY QUESTIONS

Question 3: In your opinion, how has 911 affected emergency response times in most cases?

	Law Enforcement	Fire Services	Emergency Medical Services	Total	Percent
Large Reduction	4	8	6	18	(35)
Moderate Reduction	6	4	2	12	(23)
Minor Reduction	3	-	2	5	(10)
Increase	1	5	1	7	(14)
No effect	2	1	-	3	(6)
Don't Know/No Response	4	1	1	6	(12)
Total	20	19	12	51	(100%)

Question 4a: How does your response to question 3 translate to tangible benefits (e.g., lives saved, reduced property damage)?

	Law Enforcement	Fire Services	Emergency Medical Services	Total	Percent
Substantial Benefits	8	8	5	21	(41)
Moderate Benefits	4	4	3	11	(21)
Minor Benefits	2	1	2	5	(10)
Negative Impact	1	2	-	3	(6)
No Benefit	2	2	-	4	(8)
Don't Know/No Response	3	2	2	7	(14)
Total	20	19	12	51	(100%)

Question 7: The prime purpose of 911 is to reduce the time it takes for a caller to reach the appropriate agency. In your judgment, could the funds used for 911 have had a greater impact on response time had they been spent in another way (e.g., improving dispatch procedures or redeploying resources)?

	Law Enforcement	Fire Services	Emergency Medical Services	Total	Percent
Yes	2	4	2	8	(16)
No	16	14	9	39	(76)
Don't Know/No Response	2	1	1	4	(8)
Total	20	19	12	51	(100%)

EXHIBIT 4

Summary of Responses
Survey of Communication Directors: Questions 3 and 4

Question 3: Please indicate whether your 911 system costs were more or less than expected for:

	<u>911 Costs More</u>	<u>911 Costs Same</u>	<u>911 Costs Less</u>
Equipment	6	13	1
Personnel	3	15	2
Other Costs	4	14	2
Total Costs	6	13	1

Question 4: Please indicate the dominant party which influenced the decision to implement 911.

- 5 Telephone Company
- 2 Local Fire Service
- 8 Other (specify) Communication Department (3), Mayor (2), Civil Defense Department (1), Public Safety Department (1), and City Council (1).
- Unknown
- 9 Local Law Enforcement
- 3 Local Citizens

EXHIBIT 5

Summary of Responses
Survey of 911 System Users: Questions 5 and 6

Question 5: What percentage of calls for emergency services are not received via 911 (e.g., caller dials "0" or 7-digit number)? (If this information is not available, please estimate.)

<u>Percent Of Calls</u>	<u>Number of Responses</u>
0 - 10%	27
11 - 25%	7
26 - 50%	6
51 - 100%	4

Question 6: What percentage of 911 calls are for nonemergencies? (If this information is not available, please estimate.)

<u>Percent Of Calls</u>	<u>Number of Responses</u>
0 - 10%	19
11 - 25%	3
26 - 50%	5
51 - 100%	8

Part 2: Entities Whose Representatives We Met with During the Study

Local Governments:

Alameda County
Contra Costa County
Los Angeles (City)
Los Angeles County
Monterey County
Orange County (including 20 cities within the county)
Riverside County
San Diego (City)
San Diego (County)

Others:

Continental Telephone Company
County Supervisors' Association of California
Department of General Services
General Telephone Company of California
Pacific Telephone and Telegraph Company
Stanford Research Institute
State Board of Equalization

APPENDIX B

Part 3: Selected Bibliography

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Appendix C

COMPARISON OF AMOUNTS REQUESTED BY LOCAL AGENCIES FOR 911 COSTS
WITH AMOUNTS PROPOSED BY GENERAL SERVICES

(amounts in dollars)

Region 1: North Coast Counties

Public Safety Answering Point	Telephone Costs						Incremental Costs					
	Installation Costs			Annual Costs			Initial Costs			Annual Costs		
	Requested	Proposed by Gen. Svcs.	Difference	Requested	Proposed by Gen. Svcs.	Difference	Requested	Proposed by Gen. Svcs.	Difference	Requested	Proposed by Gen. Svcs.	Difference
	a	a	a	a	a	a						
ALAMEDA												
Alameda							6,647	6,647	---	---	---	---
Albany							707	707	---	---	---	---
Berkeley							28,155	28,155	---	125,450	25,000	100,450
East Bay Reg. Pk. District							---	---	---	---	---	---
Emeryville							---	---	---	---	---	---
Fremont							1,273	1,273	---	---	---	---
Hayward							25,433	25,433	---	35,510	19,000	16,510
Livermore							4,413	4,413	---	---	---	---
Newark							2,590	2,590	---	---	---	---
Oakland							254,991	35,000	219,991	110,000	35,000	75,000
Piedmont							540	540	---	---	---	---
Pleasanton							1,862	1,862	---	---	---	---
San Leandro							7,349	7,349	---	647	647	---
Union City							86	86	---	144	144	---
University of Cal. Berkeley							---	---	---	---	---	---
County							12,632	12,632	---	121,566	25,000	96,566
TOTAL	455,050	455,050	---	748,000	748,000	---	346,678	126,687	219,991	393,317	104,791	288,526

a. Alameda County is the site of a federally-funded selective routing pilot program. The federal government has committed a total of \$2,366,000 to the 911 system. Of this, \$1,606,430 will be used to pay the major portion of telephone installation costs, which total \$2,061,480. The balance (\$455,050) is to be paid by the state and is the amount we show in the table for telephone installation costs. The remainder of the federal funds will approximately pay for the first year of annual telephone costs. The table shows the annual telephone costs (\$748,000) that the state would ultimately be responsible for when the federal grant terminates. We have not indicated the breakdown of telephone costs by PSAP because the specific allocation of state funds among the various PSAPs is not known. Because the incremental costs are not affected by the federal grant, they are indicated for each individual PSAP.

Appendix C

COMPARISON OF AMOUNTS REQUESTED BY LOCAL AGENCIES FOR 911 COSTS
WITH AMOUNTS PROPOSED BY GENERAL SERVICES

(amounts in dollars)

Region 1: North Coast Counties

Public Safety Answering Point	Telephone Costs			Telephone Costs			Incremental Costs			Incremental Costs		
	Installation Costs			Annual Costs			Initial Costs			Annual Costs		
	Requested	Proposed by Gen. Svcs.	Difference	Requested	Proposed by Gen. Svcs.	Difference	Requested	Proposed by Gen. Svcs.	Difference	Requested	Proposed by Gen. Svcs.	Difference
CONTRA COSTA												
Antioch	11,448	3,820	7,628	103,965	5,376	98,589	---	2,000	-2,000	---	---	---
Concord	17,140	83,720	-66,580	111,390	55,740	55,650	---	28,000	-28,000	---	40,000	-40,000
El Cerrito	19,640	3,820	15,820	128,832	5,376	123,456	---	1,000	-1,000	---	---	---
Martinez	9,966	3,775	6,191	100,330	7,752	92,578	---	1,000	-1,000	---	---	---
Pinole	9,099	3,775	5,324	89,311	7,752	81,559	---	1,000	-1,000	---	---	---
Pittsburg	9,058	3,820	5,238	88,618	5,376	83,242	---	1,000	-1,000	---	---	---
Pleasant Hill	10,011	3,820	6,191	101,920	5,376	96,544	---	1,000	-1,000	---	---	---
Richmond	32,867	83,720	-50,853	134,594	55,740	78,854	---	5,000	-5,000	---	20,000	-20,000
San Pablo	9,063	3,775	5,288	106,906	7,752	99,154	---	1,000	-1,000	---	---	---
Walnut Creek	12,295	3,820	8,475	101,307	5,376	95,931	---	5,000	-5,000	---	20,000	-20,000
County	34,232	83,900	-49,668	313,775	57,720	256,055	---	20,000	-20,000	---	80,000	-80,000
Core Costs	1,022,051	---	1,022,051	1,154,591	---	1,154,591	---	---	---	---	---	---
Other Costs	---	5,000	-5,000	---	15,000	-15,000	---	---	---	---	---	---
TOTAL	1,196,870	286,765	910,105	2,535,539	234,336	2,301,203	---	66,000	-66,000	---	160,000	-160,000
DEL NORTE	494	343	151	14,937	11,291	3,646	396	396	---	---	---	---

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Appendix C

COMPARISON OF AMOUNTS REQUESTED BY LOCAL AGENCIES FOR 911 COSTS
WITH AMOUNTS PROPOSED BY GENERAL SERVICES

(amounts in dollars)

Region 1: North Coast Counties

Public Safety Answering Point	Telephone Costs Installation Costs			Annual Costs			Incremental Costs Initial Costs			Annual Costs		
	Requested	Proposed by Gen. Svcs.	Difference	Requested	Proposed by Gen. Svcs.	Difference	Requested	Proposed by Gen. Svcs.	Difference	Requested	Proposed by Gen. Svcs.	Difference
HUMBOLDT	62,958	60,000	2,958	219,328	200,000	19,328	22,455	15,000	7,455	96,744	35,000	61,744
LAKE	7,056	7,056	---	34,713	34,713	---	---	---	---	56,391	20,000	36,391
MARIN	44,293	44,360	-67	107,187	110,000	-2,813	590,312	150,000	440,312	258,512	80,000	178,512
MENDOCINO												
Fort Bragg	4,464	4,464	---	33,795	33,795	---	5,000	5,000	---	---	---	---
Ukiah	15,303	15,303	---	15,891	15,891	---	5,000	5,000	---	---	---	---
TOTAL	19,767	19,767	---	49,686	49,686	---	10,000	10,000	---	---	---	---
MONTEREY												
Salinas	---	---	---	28,256	28,256	---	---	---	---	---	---	---
Monterey	---	---	---	18,223	18,223	---	---	---	---	---	---	---
TOTAL	---	---	---	46,479	46,479	---	---	---	---	---	---	---
NAPA	21,013	21,013	---	41,148	41,148	---	19,600	10,000	9,600	36,300	15,000	21,300

CONTINUED

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Appendix C

COMPARISON OF AMOUNTS REQUESTED BY LOCAL AGENCIES FOR 911 COSTS
WITH AMOUNTS PROPOSED BY GENERAL SERVICES

(amounts in dollars)

Region 1: North Coast Counties

Public Safety Answering Point	Telephone Costs			Incremental Costs								
	Installation Costs			Annual Costs			Initial Costs			Annual Costs		
	Requested	Proposed by Gen. Svcs.	Difference	Requested	Proposed by Gen. Svcs.	Difference	Requested	Proposed by Gen. Svcs.	Difference	Requested	Proposed by Gen. Svcs.	Difference
SAN BENITO	440	440	---	4,821	4,821	---	---	---	---	---	---	---
SAN FRANCISCO	39,361	39,361	---	108,875	108,875	---	306,761	50,000	256,761	273,295	---	273,295
SAN LUIS OBISPO												
San Luis Obispo	14,424	14,424	---	15,769	15,769	---	66,000	34,300	31,700	42,000	3,166	38,834
Pismo Beach	3,940	3,940	---	7,256	7,256	---	2,860	4,030	-1,170	9,298	1,135	8,163
Morro Bay	4,322	4,322	---	10,206	10,206	---	537	2,200	-1,663	10,210	1,175	9,035
County	30,671	30,671	---	96,555	96,555	---	99,800	62,000	37,800	66,200	42,000	24,200
TOTAL	53,357	53,357	---	129,786	129,786	---	169,197	102,530	66,667	127,708	47,476	80,232
SAN MATEO	1,027,275	689,488	337,787	926,632	213,200	713,432	---	500,000	-500,000	---	120,000	-120,000
SANTA CLARA												
Gilroy	1,453	1,453	---	15,848	15,848	---	1,017	1,017	---	11,722	452	11,270
Los Altos	6,106	6,106	---	11,138	11,138	---	4,750	4,750	---	1,480	1,480	---
Palo Alto	32,027	32,027	---	47,878	11,138	36,740	7,823	7,823	---	600	600	---
Santa Clara	4,098	4,098	---	6,696	6,696	---	---	---	---	---	---	---

Appendix C

COMPARISON OF AMOUNTS REQUESTED BY LOCAL AGENCIES FOR 911 COSTS
WITH AMOUNTS PROPOSED BY GENERAL SERVICES

(amounts in dollars)

Region 1: North Coast Counties

Public Safety Answering Point	Telephone Costs						Incremental Costs					
	Installation Costs			Annual Costs			Initial Costs			Annual Costs		
	Requested	Proposed by Gen. Svcs.	Difference	Requested	Proposed by Gen. Svcs.	Difference	Requested	Proposed by Gen. Svcs.	Difference	Requested	Proposed by Gen. Svcs.	Difference
SANTA CLARA (continued)												
Sunnyvale	5,728	5,728	---	11,297	11,297	---	---	---	---	---	---	---
County	183,434	183,434	---	219,583	219,583	---	911,586	269,253	642,333	721,150	37,734	683,416
TOTAL	232,846	232,846	---	312,440	275,700	36,740	925,176	282,843	642,333	734,952	40,266	694,686
SANTA CRUZ	43,568	43,568	---	88,455	88,455	---	54,700	30,000	24,700	80,210	40,000	40,210
SOLANO												
Benicia	381	381	---	4,152	4,152	---	4,120	4,120	---	7,855	7,855	---
Dixon	3,196	3,196	---	4,846	4,846	---	---	---	---	---	---	---
Fairfield	4,822	4,822	---	9,848	9,848	---	10,855	10,855	---	66,490	66,490	---
Rio Vista	2,907	2,907	---	13,790	13,790	---	---	---	---	---	---	---
Vacaville	4,375	4,375	---	8,134	8,134	---	54,216	54,216	---	---	---	---
Vallejo	5,140	5,140	---	7,359	7,359	---	---	---	---	---	---	---
TOTAL	20,821	20,821	---	48,129	48,129	---	69,191	69,191	---	74,345	74,345	---
SONOMA	107,872	107,872	---	191,906	191,906	---	589,453	130,000	459,453	503,375	80,000	423,375

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Appendix C

COMPARISON OF AMOUNTS REQUESTED BY LOCAL AGENCIES FOR 911 COSTS
WITH AMOUNTS PROPOSED BY GENERAL SERVICES

(amounts in dollars)

Region 2 : Sacramento/Central Counties

Telephone Costs

Incremental Costs

Public Safety Answering Point	Installation Costs			Annual Costs			Initial Costs			Annual Costs		
	Requested	Proposed by Gen. Svcs.	Difference	Requested	Proposed by Gen. Svcs.	Difference	Requested	Proposed by Gen. Svcs.	Difference	Requested	Proposed by Gen. Svcs.	Difference
Roseville	2,288	2,288	---	5,533	5,533	---	400	---	400	---	---	---
TOTAL	21,647	21,647	---	50,813	50,813	---	400	---	400	---	---	---
SACRAMENTO												
Folsom	7,394	1,500	5,894	11,914	1,600	10,314	---	---	---	---	---	---
Galt	6,651	1,500	5,151	12,547	1,600	10,947	---	---	---	---	---	---
Sacramento County	17,805	17,000	805	15,632	16,500	-868	---	1,000	-1,000	---	20,000	-20,000
TOTAL	579,728	300,000	279,728	754,544	350,000	404,544	408,915	25,000	383,915	459,098	80,000	379,098
TOTAL	611,578	320,000	291,578	794,637	369,700	424,937	408,915	26,000	382,915	459,098	100,000	359,098
SAN JOAQUIN												
Stockton	34,127	34,127	---	48,564	48,564	---	3,050	25,000	-21,950	2,004	20,000	-17,996
Lodi	17,183	17,183	---	39,816	39,816	---	2,810	3,000	-190	1,848	15,000	-13,152
Manteca	2,852	2,852	---	13,056	13,056	---	---	---	---	---	---	---
Tracy	4,290	4,290	---	10,082	10,082	---	---	---	---	---	---	---
TOTAL	58,452	58,452	---	111,518	111,518	---	5,860	28,000	-22,140	3,852	35,000	-31,148

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Appendix C

COMPARISON OF AMOUNTS REQUESTED BY LOCAL AGENCIES FOR 911 COSTS
WITH AMOUNTS PROPOSED BY GENERAL SERVICES

(amounts in dollars)

Region 3: North and South Central Counties

Public Safety Answering Point	Telephone Costs Installation Costs			Annual Costs			Incremental Costs Initial Costs			Annual Costs		
	Requested	Proposed by Gen. Svcs.	Difference	Requested	Proposed by Gen. Svcs.	Difference	Requested	Proposed by Gen. Svcs.	Difference	Requested	Proposed by Gen. Svcs.	Difference
ALPINE	1,202	1,202	---	4,922	4,712	210	2,900	2,900	---	---	---	---
BUTTE												
Chico	14,041	12,311	1,730	21,312	16,899	4,413	85,500	10,000	75,500	149,000	3,000	146,000
County	22,552	17,308	5,244	52,325	43,831	8,493	85,500	10,000	75,500	149,000	3,000	146,000
TOTAL	36,593	29,619	6,974	73,637	60,730	12,907	171,000	20,000	151,000	298,000	6,000	292,000
COLUSA	5,105	5,105	---	27,715	27,715	---	2,500	2,500	---	12,500	---	12,500
FRESNO												
Clovis	11,761	4,800	6,961	18,120	6,950	11,170	---	---	---	---	---	---
Firebaugh	3,668	4,800	-1,132	4,187	6,800	-2,613	250	250	---	---	---	---
Fresno	30,180	30,180	---	25,000	25,000	---	20,000	---	20,000	---	---	---
Reedley	2,481	2,481	---	5,789	5,789	---	250	250	---	---	---	---
Sanger	1,480	1,480	---	5,013	5,013	---	250	250	---	---	---	---
Selma	4,790	4,790	---	6,840	6,840	---	250	250	---	---	---	---
Orange Cove	4,515	---	4,515	5,982	---	5,982	---	---	---	---	---	---
County	36,576	36,576	---	105,004	105,004	---	600,000	600,000	---	---	---	---
TOTAL	95,451	85,107	10,344	175,935	161,396	14,539	621,000	601,000	20,000	---	---	---

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Appendix C

COMPARISON OF AMOUNTS REQUESTED BY LOCAL AGENCIES FOR 911 COSTS
WITH AMOUNTS PROPOSED BY GENERAL SERVICES

(amounts in dollars)

Region 3: North and South Central Counties

Telephone Costs

Incremental Costs

Public Safety Answering Point	Installation Costs			Annual Costs			Initial Costs			Annual Costs		
	Requested	Proposed by Gen. Svcs.	Difference	Requested	Proposed by Gen. Svcs.	Difference	Requested	Proposed by Gen. Svcs.	Difference	Requested	Proposed by Gen. Svcs.	Difference
GLENN	16,556	13,906	2,650	32,021	29,195	2,826	3,000	3,000	---	---	---	---
INYO												
Bishop	2,952	2,562	390	9,424	8,794	630	1,000	1,000	---	---	---	---
County	4,016	3,066	950	31,135	30,193	942	1,200	1,200	---	---	---	---
TOTAL	6,968	5,628	1,340	40,559	38,987	1,572	2,200	2,200	---	---	---	---
KERN												
Bakersfield	63,297	48,297	15,000	203,245	168,245	35,000	111,183	7,000	104,183	425,000	80,000	345,000
Mojave	16,860	10,550	6,310	91,923	67,502	24,421	---	---	---	---	---	---
TOTAL	80,157	58,847	21,310	295,168	235,747	59,421	111,183	7,000	104,183	425,000	80,000	345,000
KINGS												
Lemoore H.A.S.	942	252	690	1,851	1,434	417	---	---	---	---	---	---
County	16,923	14,593	2,330	26,177	24,594	1,533	6,850	6,850	---	17,500	17,500	---
TOTAL	17,865	14,845	3,020	27,978	26,028	1,950	6,850	6,850	---	17,500	17,500	---
LASSEN	5,347	5,347	---	44,878	43,942	936	600	600	---	1,750	---	1,750

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Appendix C

COMPARISON OF AMOUNTS REQUESTED BY LOCAL AGENCIES FOR 911 COSTS
WITH AMOUNTS PROPOSED BY GENERAL SERVICES

(amounts in dollars)

Region 3: North and South Central Counties

Telephone Costs

Incremental Costs

Public Safety Answering Point	Installation Costs			Annual Costs			Initial Costs			Annual Costs		
	Requested	Proposed by Gen. Svcs.	Difference	Requested	Proposed by Gen. Svcs.	Difference	Requested	Proposed by Gen. Svcs.	Difference	Requested	Proposed by Gen. Svcs.	Difference
MADERA												
Chowchilla	4,430	3,740	690	6,294	5,877	417	600	600	---	---	---	---
Madera	4,862	3,932	930	7,630	7,054	576	16,950	4,000	12,950	9,250	---	9,250
County	7,498	6,088	1,410	19,116	16,974	2,142	396	4,000	-3,604	600	---	600
TOTAL	16,790	13,760	3,030	33,040	29,905	3,135	17,946	8,600	9,346	9,850	---	9,850
MARIPOSA												
Yosemite Park	1,062	1,062	---	6,280	3,140	3,140	---	---	---	---	---	---
County	1,761	1,716	45	19,580	19,580	---	1,850	1,850	---	---	---	---
TOTAL	2,823	2,778	45	25,860	22,720	3,140	1,850	1,850	---	---	---	---
MERCED												
Gustine	---	---	---	6,021	6,021	---	200	200	---	---	---	---
Los Banos	4,503	3,813	690	6,278	5,861	417	450	450	---	---	---	---
County	19,000	15,000	4,000	31,299	28,713	2,586	47,400	14,350	33,050	25,000	12,500	12,500
Total	23,503	18,813	4,690	43,598	40,595	3,003	48,050	15,000	33,050	25,000	12,500	12,500

Appendix C

COMPARISON OF AMOUNTS REQUESTED BY LOCAL AGENCIES FOR 911 COSTS
WITH AMOUNTS PROPOSED BY GENERAL SERVICES

(amounts in dollars)

Region 3 : North and South Central Counties

Telephone Costs

Incremental Costs

Public Safety Answering Point	Installation Costs			Annual Costs			Initial Costs			Annual Costs		
	Requested	Proposed by Gen. Svcs.	Difference	Requested	Proposed by Gen. Svcs.	Difference	Requested	Proposed by Gen. Svcs.	Difference	Requested	Proposed by Gen. Svcs.	Difference
MODOC	4,129	4,129	---	35,793	35,793	---	15,150	10,000	5,150	10,300	---	10,300
MONO												
Bridgeport	3,779	3,259	520	14,208	13,368	840	2,850	2,850	---	---	---	----
Mammoth	2,934	2,544	390	10,533	9,903	630	---	---	---	---	---	---
Total	6,713	5,803	910	24,741	23,271	1,470	2,850	2,850	---	---	---	---
PLUMAS	13,567	13,567	---	44,464	44,464	---	7,650	1,300	6,350	1,300	---	1,300
SHASTA												
Anderson	16,385	7,887	8,498	19,540	13,116	6,424	13,818	4,000	9,818	47,000	---	47,000
Redding	12,830	11,414	1,416	14,633	11,060	3,573	13,250	3,100	10,150	33,150	20,000	13,150
County	22,082	18,752	3,330	52,707	44,778	7,929	2,398	3,100	-702	57,937	20,000	37,937
Burney	3,876	3,686	190	46,202	33,381	12,821	---	---	---	---	---	---
Total	55,173	41,739	13,434	133,082	102,335	30,747	29,466	10,200	19,266	138,087	40,000	98,087

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Appendix C

COMPARISON OF AMOUNTS REQUESTED BY LOCAL AGENCIES FOR 911 COSTS
WITH AMOUNTS PROPOSED BY GENERAL SERVICES

(amounts in dollars)

Region 3: North and South Central Counties

Public Safety Answering Point	Telephone Costs						Incremental Costs					
	Installation Costs			Annual Costs			Initial Costs			Annual Costs		
	Requested	Proposed by Gen. Svcs.	Difference	Requested	Proposed by Gen. Svcs.	Difference	Requested	Proposed by Gen. Svcs.	Difference	Requested	Proposed by Gen. Svcs.	Difference
SISKIYOU												
Dunsmuir	3,632	3,632	---	4,275	4,275	---	---	---	---	---	---	---
Mt. Shasta	11,804	11,804	---	17,752	17,752	---	---	---	---	---	---	---
Yreka	17,813	17,813	---	54,651	54,651	---	7,000	7,000	---	15,000	15,000	---
Weed	3,672	3,672	---	6,285	6,285	---	8,350	---	8,350	---	---	---
Total	36,921	36,921	---	82,963	82,963	---	15,350	7,000	8,350	15,000	15,000	---
STANISLAUS												
County	51,000	34,254	16,746	105,600	82,748	22,852	1,950	1,950	---	61,000	40,000	21,000
Oakdale	4,500	3,913	587	8,300	6,426	1,874	1,000	1,000	---	---	---	---
Total	55,500	38,167	17,333	113,900	89,174	24,726	2,950	2,950	---	61,000	40,000	21,000
SUTTER	15,814	15,814	---	30,688	30,688	---	4,000	3,000	500	12,500	12,500	---
TEHAMA	19,261	15,091	4,170	26,215	23,470	2,745	34,762	12,500	22,262	11,950	---	11,950
TRINITY	3,894	3,159	735	18,999	18,108	891	18,210	3,210	15,000	10,500	---	10,500

Appendix C

COMPARISON OF AMOUNTS REQUESTED BY LOCAL AGENCIES FOR 911 COSTS
WITH AMOUNTS PROPOSED BY GENERAL SERVICES

(amounts in dollars)

Region 4: Southern California Counties

Telephone Costs

Incremental Costs

Public Safety Answering Point	Installation Costs			Annual Costs			Initial Costs			Annual Costs		
	Requested	Proposed by Gen. Svcs.	Difference	Requested	Proposed by Gen. Svcs.	Difference	Requested	Proposed by Gen. Svcs.	Difference	Requested	Proposed by Gen. Svcs.	Difference
IMPERIAL	30,241	30,241	---	103,929	103,929	---	46,849	5,000	41,849	188,510	80,000	108,510
LOS ANGELES												
Los Angeles County	5,508,859	5,508,859	---	4,551,991	4,389,991	162,000	6,651,648	100,000	6,551,648	6,768,528	360,000	6,408,528
Los Angeles City	1,187,960	1,187,960	---	2,193,888	2,193,888	---	1,604,081	100,000	1,504,081	1,845,555	300,000	1,545,555
Alhambra	18,158	9,358	8,800	25,840	16,840	9,000	---	---	---	---	---	---
Arcadia	12,000	3,200	8,800	16,000	7,000	9,000	10,000	1,000	9,000	20,000	---	20,000
Avalon	2,452	2,452	---	5,701	5,701	---	---	---	---	---	---	---
Azusa	27,395	18,595	8,800	16,512	7,512	9,000	4,560	1,000	3,560	9,108	---	9,108
Baldwin Park	14,245	5,445	8,800	9,277	2,000	7,277	---	---	---	---	---	---
Bell	7,730	2,000	5,730	11,378	2,378	9,000	---	---	---	---	---	---
Bell Gardens	16,000	7,200	8,800	10,000	1,500	8,500	7,000	1,000	6,000	15,000	---	15,000
Beverly Hills	11,584	3,500	8,084	15,387	6,387	9,000	---	---	---	---	---	---
Burbank	13,000	4,200	8,800	25,000	16,000	9,000	10,000	1,000	9,000	20,000	---	20,000
Claremont	15,260	6,460	8,800	9,482	1,500	7,982	6,307	1,000	5,307	---	---	---
Compton	11,752	3,200	8,552	15,585	6,585	9,000	19,930	1,000	18,930	29,386	---	29,386
Covina	19,610	10,810	8,800	13,620	7,620	6,000	2,280	1,000	1,280	5,868	---	5,868
Culver City	14,587	5,787	8,800	21,024	12,024	9,000	---	1,000	-1,000	---	---	---

Appendix C

COMPARISON OF AMOUNTS REQUESTED BY LOCAL AGENCIES FOR 911 COSTS
WITH AMOUNTS PROPOSED BY GENERAL SERVICES

(amounts in dollars)

Region 4: Southern California Counties

Telephone Costs

Incremental Costs

Public Safety Answering Point	Installation Costs			Annual Costs			Initial Costs			Annual Costs		
	Requested	Proposed by Gen. Svcs.	Difference	Requested	Proposed by Gen. Svcs.	Difference	Requested	Proposed by Gen. Svcs.	Difference	Requested	Proposed by Gen. Svcs.	Difference
LOS ANGELES (continued)												
Downey	19,970	11,170	8,800	13,128	4,128	9,000	30,790	1,000	29,790	17,975	20,000	-2,025
El Monte	10,384	2,200	8,184	18,400	9,400	9,000	---	---	---	---	---	---
Glendale	17,693	8,893	8,800	27,315	18,315	9,000	13,740	1,000	12,740	1,745	20,000	-18,255
Glendora	15,260	6,460	8,800	9,480	1,500	7,980	11,688	1,000	10,688	54,666	---	54,666
Huntington Park	7,730	2,000	5,730	11,438	2,438	9,000	---	---	---	---	---	---
Inglewood	13,777	4,977	8,800	19,692	10,692	9,000	13,300	1,000	12,300	36,900	20,000	16,900
Irwindale	14,380	5,580	8,800	8,340	1,500	6,840	6,552	1,000	5,552	7,796	---	7,796
La Verne	16,410	7,610	8,800	10,152	1,800	8,352	5,750	1,000	4,750	7,884	---	7,884
Long Beach	30,440	21,640	8,800	32,664	23,664	9,000	1,012,720	1,000	1,011,720	10,320	40,000	-29,680
Maywood	7,900	2,500	5,400	11,200	2,500	8,700	---	---	---	---	---	---
Monrovia	16,410	7,610	8,800	10,860	1,500	9,360	93,000	1,000	92,000	73,000	---	73,000
Montebello	12,330	3,530	8,800	16,860	7,860	9,000	---	---	---	---	---	---
Monterey Park	13,179	4,379	8,800	17,945	8,945	9,000	9,960	1,000	8,960	3,680	---	3,680
Pasadena	14,337	5,537	8,800	26,885	17,885	9,000	250,130	1,000	249,130	25,828	20,000	5,828
Pomona	23,960	15,160	8,800	16,313	7,313	9,000	3,785	1,000	2,785	78,700	---	78,700
Redondo Beach	33,890	25,090	8,800	25,112	16,112	9,000	284,486	1,000	283,486	268,920	40,000	228,920
San Fernando	16,000	7,200	8,800	10,000	1,500	8,500	6,000	1,000	5,000	10,000	---	10,000

Appendix C

COMPARISON OF AMOUNTS REQUESTED BY LOCAL AGENCIES FOR 911 COSTS
WITH AMOUNTS PROPOSED BY GENERAL SERVICES

(amounts in dollars)

Region 4: Southern California Counties

Public Safety Answering Point	Telephone Costs						Incremental Costs					
	Installation Costs			Annual Costs			Initial Costs			Annual Costs		
	Requested	Proposed by Gen. Svcs.	Difference	Requested	Proposed by Gen. Svcs.	Difference	Requested	Proposed by Gen. Svcs.	Difference	Requested	Proposed by Gen. Svcs.	Difference
LOS ANGELES (continued)												
San Gabriel	19,722	10,922	8,800	13,375	4,375	9,000	---	---	---	---	---	---
San Marine	7,844	2,500	5,344	11,460	2,460	9,000	---	---	---	---	---	---
Santa Monica	34,130	25,330	8,800	21,016	12,016	9,000	6,764	1,000	5,764	83,233	20,000	63,233
Sierra Madre	15,395	6,595	8,800	9,600	1,500	8,100	2,390	1,000	1,390	6,000	---	6,000
Signal Hill	14,380	5,580	8,800	8,340	1,500	6,840	10,390	1,000	9,390	6,000	---	6,000
South Gate	11,455	2,655	8,800	19,644	10,644	9,000	134,092	1,000	133,092	82,968	---	82,968
South Pasadena	8,000	3,000	5,000	11,000	2,000	9,000	7,500	1,000	6,500	14,000	---	14,000
Torrance	17,857	9,057	8,800	27,819	18,819	9,000	348	348	---	---	20,000	-20,000
Vernon	9,158	3,000	6,158	12,657	3,657	9,000	15,200	1,000	14,200	23,400	---	23,400
West Covina	29,643	20,843	8,800	20,937	11,937	9,000	24,770	1,000	23,770	63,500	---	63,500
Whittier	16,410	7,610	8,800	11,037	2,037	9,000	2,390	1,000	1,390	6,000	---	6,000
UCLA	14,380	5,580	8,800	8,341	1,500	6,841	20,000	1,000	19,000	14,750	---	14,750
TOTAL	7,363,016	7,023,234	339,782	7,401,695	6,886,423	515,272	10,281,551	230,348	10,051,203	9,610,710	860,000	8,750,710
ORANGE												
Anaheim	32,401	23,601	8,800	53,604	44,604	9,000	33,200	1,000	32,200	118,315	40,000	78,315
Brea	10,686	1,886	8,800	16,320	7,320	9,000	2,000	1,000	1,000	67,875	---	67,875

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Appendix C

COMPARISON OF AMOUNTS REQUESTED BY LOCAL AGENCIES FOR 911 COSTS
WITH AMOUNTS PROPOSED BY GENERAL SERVICES

(amounts in dollars)

Region 4: Southern California Counties

Public Safety Answering Point	Telephone Costs						Incremental Costs					
	Installation Costs			Annual Costs			Initial Costs			Annual Costs		
	Requested	Proposed by Gen. Svcs.	Difference	Requested	Proposed by Gen. Svcs.	Difference	Requested	Proposed by Gen. Svcs.	Difference	Requested	Proposed by Gen. Svcs.	Difference
ORANGE (continued)												
Buena Park	10,746	1,946	8,800	16,459	7,459	9,000	324,000	1,000	323,000	1,000	---	1,000
Costa Mesa	19,106	10,306	8,800	22,944	13,944	9,000	75,500	1,000	74,500	100	---	100
Cypress	11,458	2,658	8,800	14,004	5,004	9,000	6,000	1,000	5,000	60,346	---	60,346
Fountain Valley	16,410	7,610	8,800	10,332	1,332	9,000	29,975	1,000	28,975	33,170	---	33,170
Fullerton	6,983	2,000	4,983	9,888	1,000	8,888	4,000	1,000	3,000	75,130	20,000	55,130
Garden Grove	10,435	1,635	8,800	14,280	5,280	9,000	91,446	1,000	90,446	97,471	20,000	77,471
Huntington Beach	44,760	35,960	8,800	32,532	23,532	9,000	91,152	1,000	90,152	178,483	20,000	158,483
Irvine	13,754	4,954	8,800	17,180	8,180	9,000	21,492	1,000	20,492	42,022	---	42,022
Laguna Beach	16,410	7,610	8,800	11,082	2,082	9,000	23,702	1,000	22,702	15,579	---	15,579
La Habra	16,410	7,610	8,800	11,004	2,004	9,000	43,720	1,000	42,720	71,119	---	71,119
La Palma	9,626	1,500	8,126	16,176	7,176	9,000	3,000	1,000	2,000	35,300	---	35,300
Los Alamitos	15,395	6,595	8,800	10,104	1,104	9,000	---	---	---	---	---	---
Newport Beach	11,549	2,749	8,800	18,384	9,384	9,000	2,000	1,000	1,000	---	---	---
Orange	12,120	3,320	8,800	15,072	6,072	9,000	8,100	1,000	7,100	139,012	20,000	119,012
Placentia	8,816	1,500	7,316	12,948	3,948	9,000	4,250	1,000	3,250	62,075	---	62,075
San Clemente	8,007	1,500	6,507	16,212	7,212	9,000	51,249	1,000	50,249	72,904	---	72,904
Santa Ana	24,060	15,260	8,800	25,788	16,788	9,000	45,000	1,000	44,000	174,630	40,000	134,630

Appendix C

COMPARISON OF AMOUNTS REQUESTED BY LOCAL AGENCIES FOR 911 COSTS
WITH AMOUNTS PROPOSED BY GENERAL SERVICES

(amounts in dollars)

Region 4: Southern California Counties

Public Safety Answering Point	Telephone Costs						Incremental Costs					
	Installation Costs			Annual Costs			Initial Costs			Annual Costs		
	Requested	Proposed by Gen. Svcs.	Difference	Requested	Proposed by Gen. Svcs.	Difference	Requested	Proposed by Gen. Svcs.	Difference	Requested	Proposed by Gen. Svcs.	Difference
ORANGE (continued)												
Seal Beach	14,245	5,445	8,800	8,580	1,000	7,580	14,725	1,000	13,725	25,176	---	25,176
Stanton	15,395	6,595	8,800	9,600	1,000	8,600	14,200	1,000	13,200	41,950	---	41,950
Tustin	10,561	2,000	8,561	13,668	4,668	9,000	817	817	---	28,950	---	28,950
Westminister	16,410	7,610	8,800	10,320	1,320	9,000	74,100	1,000	73,100	39,062	---	39,062
County	1,248,121	1,248,121	---	1,238,484	1,229,484	9,000	375,000	10,000	365,000	318,542	60,000	258,542
TOTAL	1,603,864	1,409,971	193,893	1,624,965	1,410,897	214,068	1,338,628	31,817	1,306,811	1,698,211	220,000	1,478,211
RIVERSIDE												
Banning	30,890	22,090	8,800	19,719	10,719	9,000	850	1,000	-150	5,000	---	5,000
Beaumont	27,395	18,595	8,800	16,435	7,435	9,000	3,350	1,000	2,350	16,400	---	16,400
Blythe	3,360	2,970	390	12,028	11,398	630	---	390	-390	---	630	-630
Coachella	28,545	19,745	8,800	17,140	8,140	9,000	4,670	1,000	3,670	10,548	---	10,548
Corona	12,362	3,562	8,800	20,685	11,685	9,000	6,000	1,000	5,000	107,000	---	107,000
Hemet	29,560	20,760	8,800	17,769	8,769	9,000	4,670	1,000	3,670	10,548	---	10,548
Indio	15,395	6,595	8,800	10,755	1,755	9,000	2,280	1,000	1,280	4,560	---	4,560
Palm Springs	17,740	8,940	8,800	11,350	2,350	9,000	2,500	1,000	1,500	7,428	---	7,428
Perris	14,245	5,445	8,800	6,812	1,500	5,312	2,280	1,000	1,280	4,560	---	4,560

Appendix C

COMPARISON OF AMOUNTS REQUESTED BY LOCAL AGENCIES FOR 911 COSTS
WITH AMOUNTS PROPOSED BY GENERAL SERVICES

(amounts in dollars)

Region 4: Southern California Counties

Public Safety Answering Point RIVERSIDE (continued)	Telephone Costs						Incremental Costs					
	Installation Costs			Annual Costs			Initial Costs			Annual Costs		
	Requested	Proposed by Gen. Svcs.	Difference	Requested	Proposed by Gen. Svcs.	Difference	Requested	Proposed by Gen. Svcs.	Difference	Requested	Proposed by Gen. Svcs.	Difference
Riverside	18,549	9,749	8,800	27,282	18,282	9,000	---	---	---	---	20,000	-20,000
San Jacinto	14,245	5,445	8,800	8,909	1,500	7,409	1,000	1,000	---	12,000	---	12,000
County #1	15,395	6,595	8,800	9,379	1,500	7,879	2,390	20,000	-17,610	6,000	---	6,000
County #2	16,410	7,610	8,800	10,285	1,500	8,785	2,390	---	2,390	6,000	---	6,000
County #3	16,410	7,610	8,800	10,285	1,500	8,785	2,390	---	2,390	6,000	---	6,000
County #4	16,410	7,610	8,800	10,808	1,500	9,308	2,390	---	2,390	6,000	---	6,000
County #5	755,460	755,460	---	935,911	935,911	---	6,602	---	6,602	4,560	---	4,560
TOTAL	1,032,371	908,781	123,590	1,145,552	1,025,444	120,108	43,762	29,390	14,372	206,604	20,630	185,974
SAN BERNARDINO												
Adelanto	375	375	---	1,271	1,271	---	---	---	---	---	---	---
Barstow	5,712	4,502	1,210	37,633	24,013	13,620	---	---	---	---	---	---
Cajon	15,000	6,200	8,800	10,000	1,500	8,500	---	---	---	---	---	---
Fontana	16,740	7,940	8,800	10,350	1,500	8,850	2,500	1,000	1,500	7,200	---	7,200
Ontario	54,205	45,405	8,800	33,412	24,412	9,000	82,776	1,000	81,776	100,812	20,000	80,812
Redlands	16,410	7,610	8,800	10,285	1,500	8,785	2,390	1,000	1,390	6,000	---	6,000
Colton	10,431	1,631	8,800	16,211	7,211	9,000	---	---	---	---	---	---

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Appendix C

COMPARISON OF AMOUNTS REQUESTED BY LOCAL AGENCIES FOR 911 COSTS
WITH AMOUNTS PROPOSED BY GENERAL SERVICES

(amounts in dollars)

Region 4: Southern California Counties

Public Safety Answering Point	Telephone Costs						Incremental Costs					
	Installation Costs			Annual Costs			Initial Costs			Annual Costs		
	Requested	Proposed by Gen. Svcs.	Difference	Requested	Proposed by Gen. Svcs.	Difference	Requested	Proposed by Gen. Svcs.	Difference	Requested	Proposed by Gen. Svcs.	Difference
SAN BERNARDINO (continued)												
Rialto	10,586	1,786	8,800	15,389	6,389	9,000	---	---	---	---	---	---
San Bernardino	25,650	16,850	8,800	18,689	9,689	9,000	4,780	1,000	3,780	12,000	20,000	-8,000
Upland	16,410	7,610	8,800	10,506	1,500	9,006	---	---	---	---	---	---
County #1	52,170	43,370	8,800	32,460	23,460	9,000	60,316	5,000	55,316	851,097	---	851,097
County #2	64,060	55,260	8,800	39,941	30,941	9,000	---	---	---	---	---	---
County #3	9,132	9,132	---	25,434	14,434	11,000	---	---	---	---	---	---
County #4	3,173	3,173	---	10,538	25,434	-14,896	---	---	---	---	---	---
County #5	6,943	6,943	---	16,152	16,152	---	---	---	---	---	---	---
County #6	6,600	6,600	---	14,400	14,400	---	---	---	---	---	---	---
County #7	2,686	2,686	---	3,762	3,762	---	---	---	---	---	---	---
TOTAL	316,283	227,073	89,210	306,433	207,568	98,865	152,762	9,000	143,762	977,109	40,000	937,109
SAN DIEGO												
Carlsbad	8,584	1,500	7,084	21,669	12,669	9,000	---	1,000	-1,000	---	---	---
Chula Vista	11,988	3,188	8,800	17,996	8,996	9,000	---	1,000	-1,000	---	---	---
Coronado	8,508	1,500	7,008	11,395	2,395	9,000	---	1,000	-1,000	---	---	---
El Cajon	11,829	3,029	8,800	24,417	15,417	9,000	---	1,000	-1,000	---	---	---

Appendix C

COMPARISON OF AMOUNTS REQUESTED BY LOCAL AGENCIES FOR 911 COSTS
WITH AMOUNTS PROPOSED BY GENERAL SERVICES

(amounts in dollars)

Region 4: Southern California Counties

Telephone Costs

Incremental Costs

Public Safety Answering Point	Installation Costs			Annual Costs			Initial Costs			Annual Costs		
	Requested	Proposed by Gen. Svcs.	Difference	Requested	Proposed by Gen. Svcs.	Difference	Requested	Proposed by Gen. Svcs.	Difference	Requested	Proposed by Gen. Svcs.	Difference
SAN DIEGO (continued)												
Escondido	10,364	1,564	8,800	21,143	12,143	9,000	---	1,000	-1,000	---	---	---
Imperial Beach	8,667	1,500	7,167	12,322	3,322	9,000	---	1,000	-1,000	---	---	---
La Mesa	11,326	2,526	8,800	16,689	7,689	9,000	---	1,000	-1,000	---	---	---
National City	12,967	4,167	8,800	15,202	6,202	9,000	---	1,000	-1,000	---	---	---
Oceanside	8,706	1,500	7,206	19,300	10,300	9,000	---	1,000	-1,000	---	---	---
San Diego	34,026	25,226	8,800	58,479	58,479	---	58,115	1,000	57,115	353,492	100,000	253,492
County	1,267,148	1,267,148	---	1,215,326	1,215,326	---	50,000	10,000	40,000	141,000	60,000	81,000
TOTAL	1,394,113	1,312,848	81,265	1,433,938	1,352,938	81,000	108,115	20,000	88,115	494,492	160,000	334,492
SANTA BARBARA												
Carpinteria	2,059	2,059	---	3,010	3,010	---	4,503	500	4,003	4,838	---	4,838
Guadalupe	373	373	---	1,271	1,271	---	---	---	---	---	---	---
Lompoc	713	713	---	2,386	2,386	---	696	696	---	---	---	---
Santa Barbara	2,255	2,255	---	5,463	5,463	---	---	1,500	-1,500	---	---	---
Santa Maria	3,050	3,050	---	3,208	3,208	---	18,315	1,000	17,315	---	---	---
County	34,273	34,273	---	53,040	53,040	---	39,363	3,000	36,363	7,965	40,000	-32,035
TOTAL	42,723	42,723	---	68,378	68,378	---	62,877	6,696	56,181	12,803	40,000	-27,197

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OWEN K. KUNG
RAY H. WHITAKER
CHIEF DEPUTIES

KENT ... DECHAMBEAU
STANLEY M. LOUIMORE
EDWARD F. NOWAK
EDWARD K. PURCELL

JERRY L. BASSETT
HARVEY J. FOSTER
ROBERT D. GRONKE
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Emergency Telephone Number System - #3369

Dear Mr. Hamm:

QUESTION NO. 1

To what extent is the state obligated to reimburse local agencies for their "incremental costs," as defined by Section 53108.1 of the Government Code, in establishing a statewide emergency telephone number program?

OPINION NO. 1

The state is not obligated to reimburse local agencies for their "incremental costs," as defined by Section 53108.1 of the Government Code, in establishing a statewide emergency telephone number program.

ANALYSIS NO. 1

Chapter 1005 of the Statutes of 1972 added Article 6 (commencing with Section 53100) to Chapter 1 of Part 1 of Division 2 of Title 5 of the Government Code,¹ which is known as the Warren-911-Emergency Assistance Act (subd. (a), Sec. 53100). The article expresses the intent

¹ All section references are to the Government Code, unless otherwise specified.

of the Legislature that it is the purpose of the article to establish "911" as the primary emergency telephone number in this state and to encourage units of local government to improve emergency communication procedures and facilities so that they can quickly respond to any person dialing "911" seeking police, fire, medical, rescue, and other emergency services (subd. (b), Sec. 53100). Moreover, the article requires that every local agency establish and have in operation by December 31, 1985, a basic system or be part of such a system (Sec. 53109, as amended by Ch. 352, Stats. 1978). "Public agency" is defined for purposes of the Warren-911-Emergency Assistance Act as the state and any city, county, city and county, municipal corporation, public district, or public authority in this state which provides, or has authority to provide, firefighting, police, ambulance, medical, or other emergency services (Sec. 53101). "Basic system" is defined for purposes of the act as a telephone service which automatically connects a person dialing "911" to an established public safety answering point through normal telephone service facilities (Sec. 53107).

Section 53115.1, as added by Chapter 443 of the Statutes of 1976, provides for a nine-member appointed Advisory Committee on the State Emergency Telephone Number² in the Department of General Services³ which assists the department in resolving conflicts between state and local government and the communications industry in implementing the emergency telephone number system when requested by the Communications Division⁴ of the department. The section also provides, of concern here, as follows:

"It is the purpose of the advisory committee to evaluate requests from local agencies for state assistance for incremental costs and to recommend to the Chief of the Communications Division, Department of General Services when appropriation for reimbursement to a local agency for such incremental costs should be made. The advisory committee will be formed on or before January 1, 1977."

² Hereafter referred to as the advisory committee.

³ Hereafter referred to as the department.

⁴ Hereafter referred to as the communications division.

Section 53115.2, as added by Chapter 443 of the Statutes of 1976, provides for the functions of the advisory committee, and it reads as follows:

"53115.2. The committee shall only review final plans which have been referred for consideration for incremental funding by the Communications Division at the request of a local agency. The committee shall make a recommendation to the Communications Division regarding state appropriation for payment or reimbursement for incremental costs.

"The committee may also act in a general advisory capacity to the Communications Division relative to the implementation of any '911' system."

Section 53108.1 of the Warren-911-Emergency Assistance Act, as added by Chapter 443 of the Statutes of 1976, defines "incremental costs" as follows:

"53108.1. 'Incremental costs', as used in this article, mean any costs necessary for the establishment of a system required by this article and recommended for reimbursement by the advisory committee established by Section 53115.1 other than costs for (1) a basic system, (2) a basic system with telephone central office identification, or (3) a system employing automatic call routing, which are reasonable, necessary and unique for the planning and efficient implementation of a local agency's 911 system."

The question presented here is the extent to which the state may be obligated to reimburse local agencies for their "incremental costs" in establishing the "911" system. There are two possible means by which local agencies may seek state reimbursement for such costs. We shall discuss each in turn.

Chapter 443 of the Statutes of 1976 enacted a funding mechanism for implementing the "911" system, which appears in Part 20 (commencing with Section 41001) of Division 2 of the Revenue and Taxation Code. The declared legislative purpose in enacting the part is to permit public agencies to implement the "911" system and to provide funding for, among other things, "incremental costs" (Sec. 41150, R. & T.C.). The part requires the imposition of a surcharge on amounts paid by every person in the state for intrastate telephone communication services (Sec. 41020, R. & T.C.). The surcharge is collected by the service supplier (Sec. 41021, R. & T.C.) and is remitted to the State Board of Equalization (Sec. 41051, R. & T.C.). Surcharge amounts received by the board are required to be deposited in the State Emergency Telephone Number Account Fund, which was created by the part in the General Fund in the State Treasury (Sec. 41135, R. & T.C.).

Expenditure of funds in the State Emergency Telephone Number Account are provided for by Article 2 (commencing with Section 41135) of Chapter 7 of Part 20 of the Revenue and Taxation Code. Although various sections in that article require funds in the account to be expended for certain purposes or require the department to expend funds in the account for certain purposes, including claims submitted by local agencies for approved "incremental costs" (see par. (4), subd. (f), Sec. 41136 and Sec. 41137.1, R. & T.C.), all such sections only permit such expenditures "when appropriated by the Legislature," "from funds appropriated from the State Emergency Telephone Number Account by the Legislature," or when "[t]he Legislature has appropriated in the Budget Bill an amount sufficient to pay such bills" (see Secs. 41136, 41137, 41137.1, 41138, 41139, 41140, R. & T.C.). Furthermore, Section 41142 provides that if the Legislature fails to appropriate an amount sufficient to pay service suppliers or communications equipment companies for installation and ongoing communications services supplied local agencies in connection with the "911" system, the obligation of service suppliers and local agencies to provide "911" emergency telephone service shall terminate until paid by the Legislature.

We think it is clear from the above discussion that nothing in Part 20 (commencing with Section 41001) of the Revenue and Taxation Code requires the state to reimburse local agencies for costs incurred in establishing a "911"

emergency telephone service, including "incremental costs." In any event, it is established that the power to collect and appropriate the revenue of the state is one peculiarly within the discretion of the Legislature (Myers v. English, 9 Cal. 341, 349; Humbert v. Dunn, 84 Cal. 57, 59-60; California State Employees' Assn. v. State of California, 32 Cal. App. 3d 103, 107-108; also see Secs. 1 and 12, Art. IV, Cal. Const.). Moreover, under the doctrine of separation of governmental powers (Sec. 3, Art. III, Cal. Const.), the judiciary has no power to compel a legislative appropriation of money (California State Employees' Assn. v. Flournoy, 32 Cal. App. 3d 219, 234-235).

The other possible means by which local agencies might attempt to seek state reimbursement for "incremental costs" in establishing a "911" system is provided for by Chapter 3 (commencing with Section 2201) of Part 4 of Division 1 of the Revenue and Taxation Code.

Chapter 1406 of the Statutes of 1972, among other things, provided that the state would reimburse counties, cities, and special districts for costs mandated by the state by statutes enacted after January 1, 1973 (see former Sec. 2164.3, R. & T.C., as contained in Sec. 14.7, Ch. 1406, Stats. 1972). However, such provisions were repealed and reenacted in expanded form in the following year as Chapter 3 (commencing with Section 2201) of Part 4 of Division 1 of the Revenue and Taxation Code (see Secs. 2 and 3, Ch. 358, Stats. 1973).⁵ Subsequently, such chapter has been amended on numerous occasions.

Section 2231 of the Revenue and Taxation Code provides of concern here, that the state shall reimburse each local agency for all costs mandated by the state, as defined in Section 2207 of the Revenue and Taxation Code.

Relevant provisions of Section 2207 of the Revenue and Taxation Code define "costs mandated by the state" to include any increased costs which a local agency is required to incur as a result of any law enacted after January 1, 1973, which mandates a new program or an increased level of service of an existing program.

⁵ Hereinafter referred to as Chapter 3.

As stated previously, the Warren-911-Emergency Assistance Act was enacted by Chapter 1005 of the Statutes of 1972, and the Revenue and Taxation Code sections discussed immediately above have their derivation in Chapter 1406 of the Statutes of 1972. The question arises whether such Revenue and Taxation Code provisions of Chapter 3 apply to the initial enactment of the "911" system, since even though the Revenue and Taxation Code provisions were chaptered later than the initial provisions providing for the "911" system, both chapters took effect March 7, 1973, and such date is subsequent to the January 1, 1973, date provided for in Section 2207 of the Revenue and Taxation Code discussed above.

The applicability of Revenue and Taxation Code provisions enacted by Chapter 1406 of the Statutes of 1972 to legislation chaptered prior to Chapter 1406, which took effect March 7, 1973, has been decided in County of Orange v. Flournoy, 42 Cal. App. 3d 908. In that case, the court concluded that the provisions of Chapter 1406 do not apply to state-mandated programs required by legislation passed and signed prior to January 1, 1973. Hence, we think the provisions of Chapter 3 discussed above would not apply to costs incurred by local governmental entities in establishing a "911" telephone system under the provisions that initially required such a system.

Nevertheless, Section 2207 of the Revenue and Taxation Code defines "costs mandated by the state," for which the state is required to reimburse local agencies pursuant to Section 2231 of the Revenue and Taxation Code, not only in terms of new programs but also in terms of an increased level of service of an existing program enacted after January 1, 1973. Thus, we think that a local agency may only seek reimbursement pursuant to Sections 2207 and 2231 of the Revenue and Taxation Code for costs, including "incremental costs," in establishing a "911" system that result from additional duties placed on the agency in establishing the "911" system that are provided for by legislation enacted after January 1, 1973.

We have reviewed the legislative changes to the Warren-911-Emergency Assistance Act that have been made since its original enactment and conclude that the additional duties placed on local agencies by such changes

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are minor in nature. We do not think, therefore, that such changes would amount to significant costs for which local agencies could seek reimbursement pursuant to Sections 2207 and 2231 of the Revenue and Taxation Code.⁶

It is, therefore, our opinion that the state is not obligated to reimburse local agencies for their "incremental costs," as defined by Section 53108.1, in establishing a statewide emergency telephone number program.

END