

POLICE RESPONSE TO BURGLAR ALARMS STUDY: SAN BERNARDINO COUNTY

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EXECUTIVE SUMMARY

I. BURGLAR ALARMS AND CRIME

False burglar alarms are a major issue facing police departments; estimates from agencies across the country suggest that between 8-25% of calls for service are for false alarms. It is estimated that annually there are 36 million false alarms in the United States costing about \$1.8 billion (Blackstone, Hakim, and Spiegel, 2002). This equates to approximately 35,000 American police officers that could be shifted to more productive responsibilities. An alarm response policy should weigh the safety of a jurisdiction's citizens and the cost incurred by the city or county and its police department. Thus, alarm response policies should be reviewed periodically to ensure that the policy is achieving stated objectives and is cost effective.

II. POLICIES USED TO MANAGE FALSE ALARMS

There are five noted strategies for managing false alarms: verified police response, fining alarm companies, two call verification of alarms, enhanced management of false alarms, and enhanced public education. Research suggests that adopting a policy of law enforcement agencies as first responders to locations of concern to homeland security, robbery or panic alarms, and alarm calls verified by alarm companies to be legitimate, is an effective way to reduce false alarm calls. Fining systems can also be effective if strategies can be adopted to enhance the efficiency of repeat false alarm identification, generation of fine notices, and collection of fines. Public education is also warranted when using a fining system.

III. SAN BERNARDINO COUNTY FALSE ALARM RESPONSE SURVEY: RESULTS AND ANALYSIS

Police and Sheriff's departments located in San Bernardino County were surveyed about their false alarm activity during the summer of 2006. Nine agencies responded. All nine responding departments characterize their residential burglary alarm response policy as first responder to alarm calls with a fine system for false alarms.

- In 6/9 jurisdictions registration is required for residential burglary alarms and 5 agencies required a fee for residential burglary alarm registration.
- Fines for false burglary alarms are typically assessed on (N=3) or after (N=5) the 3rd false alarm; fines generally increase with subsequent alarms (4/9 jurisdictions).
- In 2/9 jurisdictions commercial false alarms are fined at a higher rate than residential false alarms
- The generation of fine notices and collection of fines is the responsibility of the city government in 3/9 jurisdictions; responsibility is shared by city government and police department in 4/9 jurisdictions, police department has sole responsibility in one jurisdiction.
- It is estimated that, on average 74% of false residential burglary alarm fines are collected. Typically, City General Funds receive the fines generated by false burglary alarms.

Alarm calls account for between 1% and 12% of all calls for service (Mean = 6%)

- On average, 98.95% of burglary alarms are false.
- An arrest for burglary was made in only 0.08% of responses to burglar alarm activations.
- Responding to false burglary alarms (from dispatch to clearing the call) takes between 4.72 min. to 25.00 min. (Mean=17.06 min.)

- Average hours per year consumed responding to false burglary alarms ranges from 146 hrs. to 4,382 hrs. (Mean= 1,602 hrs).
- The manpower cost per year for 2-officer response (8/9 jurisdictions) to false burglary alarms ranges from \$12,025 to \$409,949. (Mean= \$ 171,845).

POLICE RESPONSE TO BURGLAR ALARMS STUDY: SAN BERNARDINO COUNTY

The purpose of this white paper is to examine the issues and problems associated with police departments' policies and responses to false burglar alarms, especially in San Bernardino County. False alarms have become a major issue for police departments in that they consume substantial resources without resulting in an equivalent impact on crime or public safety. Nationally, approximately eight to 25 percent of police calls for service are for false alarms when a department fails to implement procedures to reduce false alarms, alarm calls constitute a higher percentage of calls for service. This represents a significant drain on police resources and results in departments not being able to provide adequate attention to those calls that are of a higher priority, especially those calls involving crime.

The issue is particularly cogent for cities and departments in San Bernardino County. The overwhelming majority of cities in the county are experiencing rapid population growth. San Bernardino is one of the fastest growing counties in California. This results not only in an increase demand for police services, but it also precipitates an ever increasing number of alarms being installed especially in residential neighborhoods. Alarms are standard in many new houses in the area. In many instances, police response to calls for service has lagged behind as the result of population growth and changes in crime rates. In some instances, cities have not allocated new positions to keep abreast with the expansion, and in other cases, police departments have experienced substantial difficulty in attracting and hiring qualified police applicants. This results in additional pressures on police departments in terms of responding to crime and calls for service in a timely and effective manner.

Nationally, there have been several studies examining the problem. Most of the studies have been conducted by police departments. Additionally, the National Institute of Justice commissioned a study and at least one alarm company, SONITROL, conducted a study. These studies resulted in a variety of recommended policies and responses that are examined in the body of this report. The number of studies also demonstrates the level of concern relative to the problem. Departments in San Bernardino County currently have alarm response policies. In essence, an alarm response policy should weigh the safety of a jurisdiction's citizens and the cost incurred by the city or county and its police department. Thus, alarm response policies should be reviewed periodically to ensure that the policy is achieving stated objectives and is cost effective. Do departments have the "best" policy that serves their needs?

Nationally, false burglar alarms are a major issue facing police departments; 8-25% of calls for service are for false alarms.

Alarm policies require periodic review in rapidly changing communities.

This report uses data collected from cities in San Bernardino County. All cities and the Sheriff's Department were sent questionnaires. It should be remembered that this report serves as a summary for all cities participating in the study. As police chiefs decide on pursuing new strategies, the data contained in this report can be edited to include only that agency for presentation to city officials. The arguments for a particular strategy can be tailored and compared with the data from the city. This will lead to a stronger argument for the policy change.

I. BURGLAR ALARMS AND CRIME

Before discussing the relevant policy issues and problems associated with false alarms, it is important to discuss how alarms affect crime. Such a discussion provides valuable background information that is important in subsequent policy decisions. Their operation should frame policy to ensure maximum effectiveness.

The Preventive Aspects of Burglar Alarms

First, it should be noted that there are two types of alarms that are reported to the police: 1) burglar alarms and 2) robbery or panic alarms. Burglary alarms are those alarms that are activated when an intruder attempts to enter a business or residence usually when the occupant is not present. The overwhelming majority of alarms received by police departments are burglary alarms. Robbery or panic alarms, on the other hand, are those alarms that are initiated by citizens as the result of a real or perceived intruder. In terms of robbery alarms, many businesses including financial institutions and others maintain robbery alarms. Residential burglary alarms have panic alarms whereby a resident or inhabitant can quickly summons the police in emergency situations. This paper focuses on burglary alarms, as opposed to robbery or panic alarms. Police departments should continue to maintain a rapid response to robbery and panic alarms. Although the majority of such alarms are false alarms, they have a greater potential to be legitimate as compared to burglary alarms. They also alert the police to a possible serious crime in progress.

Burglary alarms serve two purposes, and it is debatable as to which purpose is the primary objective. First, burglar alarms serve to deter or prevent burglaries. There is a body of research that indicates that burglars, except for the most inexperienced, attempt to identify targets that are not guarded. They do not randomly select targets. They investigate the whereabouts of inhabitants and the level of difficulty for entry and exit. The mere presence of a burglar alarm has somewhat of a deterrent effect, and this presence becomes explicit with the posting of a burglar alarm sign. Indeed, the posting of a sign likely serves as a strong deterrent as having an actual alarm.

Burglary alarms can be tripped by intruders or accidentally during activation/disarmament.

Robbery or panic alarms are activated intentionally by citizens perceiving a threat of immediate danger.

There is sparse research examining the impact of burglar alarms on the incidence of burglaries. Hakim and Buck found that residences with alarms had a 1.4 percent chance of burglary, and homes without alarms had a 2.3 chance of burglary. The effect for businesses was more profound. Businesses with alarms had a 4.2 percent chance of victimization, while non-alarm businesses had an 18.2 percent chance of being burgled. This research seems to indicate that the presence of burglar alarms have a preventive effect. However, it should be noted that most alarms are installed in residences and businesses in higher socio-economic areas, and the highest burglary victimization generally occurs in lower socio-economic areas. Thus, the findings may be artifacts resulting from the research design. Thus, it is not known from a research standpoint how effective alarms are in deterring crime. It may be that less costly precautions such as adequate lighting, a vehicle in the driveway, presence of a dog, and target hardening such as deadbolt locks may be just as effective in deterring burglaries as alarms.

The second purpose of an alarm is to facilitate detection and apprehension of burglars and other criminals. Indeed, when alarm companies market alarms, one of the benefits often mentioned is a police response. However, police responses to burglar alarms, especially those in residential areas, may be of the lowest priority in terms of dispatch. With few exceptions, there is not a rapid police response. Police officers respond to more pressing calls for service, especially considering that almost all alarm calls are false. The high number of false alarms increases the level of danger to police officers, when there actually is a crime in progress officers do not take them seriously and often are not as attentive as needed. This is not to say that alarms are of no utility in assisting the police in apprehending potential burglars. The primary benefit of an activated alarm is that it raises the awareness of neighbors and passersby to the point that they more carefully observe what is transpiring. In many instances, if they observe something suspicious they immediately notify the police, and in some cases, they give officers descriptions of suspicious persons or activities. This more often leads to an apprehension as compared to responding to an alarm. Thus, police response is not as important as the public awareness raised by the alarm.

The Costs Associated with Responding to Alarms

As noted above, police response to alarms is very costly. At first glance, it would appear that alarm calls would not be of concern to police managers. Police departments have large numbers of sworn and civilian personnel, and patrol officers who respond to citizen calls for service and alarms are allocated throughout the jurisdiction on a 24 hour basis. However, the majority of police departments, if not all, are understaffed as discussed above. That is, their workloads are substantial to the

Alarms have little impact on residential burglary.

Non-alarm businesses are 3.5 times as likely to be victimized compared with alarmed properties.

Police response to alarms is very costly.

20 alarm calls consume about 1 officer for a 10 hour shift.

point that additional duties or responsibilities often detract from other important tasks. Police departments do not have human resources to spare, especially considering that each alarm call consumes 20 to 40 minutes of an officer's time (this time figure includes response time and time on the scene). This means that 20 alarm calls would consume one officer for a ten hour shift.

Thus, there is a level of costs to departments when responding to alarms. Sampson succinctly summarized the problem,

If alarms are highly reliable, the public benefits from police catching burglars, taking them out of circulation and reducing the risk of burglary for everyone in the community. However, if alarms are unreliable, then automatic police response becomes a personal service to the alarm owner, providing no benefits to the public at large.

There have been several studies examining the number of alarms and their effectiveness in terms of leading to the arrest of burglars or other criminals. Blackstone, Hakim, and Spiegel note,

... in DeKalb, Georgia, in 2000, only 39 out of over 144,000 alarm calls were actual or attempted burglaries. That same year, 97.5 percent of 30,000 police responses to burglar alarms in Seattle were false, and only 40 burglars were actually apprehended. Chicago police annually respond to over 300,000 alarms, 98 percent are false.

It should be noted that these statistics include both residential and commercial alarms, and it is likely that most of the burglary apprehensions were for commercial establishments, which have a higher alarm reliability rate. Moreover, it is not known what percentages of the burglary apprehensions was the result of a rapid police response to the alarms.

Blackstone, Hakim, and Spiegel estimated that annually there are 36 million false alarms in the United States costing about \$1.8 billion. In other words, if false alarms did not occur, approximately 35,000 American police officers could be shifted to more productive responsibilities. In later sections of this report, the impact of false alarm calls in cities in San Bernardino County is examined. The following section of the report examines measures enacted by departments to better manage false alarms.

Blackstone, Hakim, and Spiegel estimated that annually there are 36 million false alarms in the United States costing about \$1.8 billion. In other words, if false alarms did not occur, approximately 35,000 American police officers could be shifted to more productive responsibilities.

II. POLICIES USED TO MANAGE FALSE ALARMS

Research indicates that when a department or city has no policy governing burglar alarms, burglar alarm calls will constitute approximately 8 to 25 percent of a department's total citizen calls for service consuming vast amounts of patrol personnel's time. There are a number of departments that have not instituted any policies, but it appears that most if not all departments in San Bernardino have such a policy. This section examines the various policies that have been implemented and their effectiveness in reducing false burglar alarms, impact on crime, and criminal apprehension are discussed.

No Restrictive Policy

There are a number of departments that have not enacted alarm policies. When no policy exists, there is no incentive by alarm owners or alarm businesses to reduce the number of false alarms. **False alarms account for upward to 25 percent of police calls for service in cities that do not have any type of restrictive policies.** It has been shown that there are numerous policies that can reduce the volume of false alarms.

Verified Police Response

Verified police response is where burglary alarms are verified by a third party before a police response. Cities such as Salt Lake City UT, Las Vegas NV, Milwaukee WI, and Fremont CA, California have enacted verified police response ordinances or policies. In Salt Lake City, the alarm companies have hired private security companies to respond to burglar alarms. Verified police response requires a visual verification of the alarm's legitimacy and if an alarm is determined to be legitimate, the police are summoned. **Verified police response in Salt Lake City has resulted in a 90 percent reduction in the number of alarm calls answered by police officers.** It has also resulted in a more rapid police response to alarms since in many cases, alarms are a low priority. Verified police response is the optimal policy since it results in reduced calls, officer safety, and greater citizen satisfaction. Alarm companies are adamantly opposed to verified police response since it generally results in reduced company profits. They often initiate public relations campaigns using scare tactics to discourage the adoption of such policies. The issue is extremely political and difficult when attempting to secure city council approval.

When verified police response is used for burglar alarms, it is recommended that the police respond to all panic alarms and robbery alarms. Moreover, agencies can continue to act as first responders to "potentially dangerous" targets. For example, the Fremont, California Police Department responds to burglar alarms

POLICIES TO MANAGE ALARMS

- Verified Police Response
- Fining Alarm Companies
- Two Call Verification of Alarms
- Enhanced Management of False Alarms
- Enhanced Public Education

Verified Police Response

Adopting verified police response to alarm calls while maintaining rapid response to all panic alarms and alarms to homeland security targets, can significantly reduce the costs associated with false alarms and improve public safety.

at potential “homeland security” targets that include gun shops, businesses that sell chemicals, and financial institutions. Departments can modify a verified police response to meet their unique needs.

Fining Alarm Companies

An unusual program was adopted in Palm Beach County, Florida, where alarm companies, rather than alarm owners, were fined. Each year alarm companies are assessed a registration or business fee. The amount of the fee is determined by the number of false alarms from the company’s subscribers. The alarm company is also fined based on the number of false alarms. If the company does not pay the fine, the department does not respond to any locations that are served by the alarm company.

This policy provides an incentive to alarm companies to actively reduce the number of false alarms, although it was reported that the policy change had little effect on the number of false alarms. The policy should improve public relations with citizens since they are not fined. However, citizens do not have any incentive to improve their management of their alarm systems.

A form of the fining alarm companies’ strategy was attempted in Riverside. Here the department required that alarm companies report alarms using a 900 telephone number, which resulted in the alarm company incurring a charge for each call. The alarm companies sued, and the department was forced to abandon the program.

Two Call Verification of Alarms

Currently, most alarm companies will attempt to make one telephone call to the business or residence when an alarm is activated. If the alarm company is unable to connect with an occupant, the police are called. However, the majority of false alarm activations occur when leaving or arriving. For example, a large number of false alarms occur when residents leave their residence for work. Thus, in many cases, the alarm companies are unable to make contact with the alarm owner. Some departments’ alarm policies require departments to maintain work and cell phone numbers that are called when the alarm owner is not reached on the first telephone call. This procedure can reduce the number of false alarms depending on the amount of effort exerted by the alarm company.

Enhanced Management of False Alarms

There has been a reduction in the number of alarms when departments have implemented a fine system for false alarms.

Fining Alarm Companies

Billing alarm companies annually through a sliding registration fee based on the number of false alarms will help to recoup costs associated with attending false alarms, but it will not reduce the drain on officer time.

Two Call Verification

There is no empirical evidence of material change in the number of false alarms; results depend on the effort exerted by the alarm company.

Generally, alarm owners are fined upon a third false alarm within a twelve month period. In many cases, these systems are manual or only semi-automated. The City of Phoenix developed a computerized system to keep track of the number of false alarms, which increased better recordkeeping and the number of fines. It also resulted in a substantial decrease in the number of false alarms.

Police departments generally do not place a great deal of emphasis on these systems, and recordkeeping may be deficient or have lapses in efficiency since the money generated from these fines generally goes to the jurisdiction's general fund. However, the preventive or deterrent effects of fines should be considered. That is, if police departments maintained better records that resulted in a larger number of fines, it may have an impact on alarm owner behavior, which occurred in Phoenix. The fear of receiving a fine for false alarms should be no different than fear of receiving a speeding citation. Moreover, the fines for false alarms may be too low. These fines generally are around \$50.00 for the third false alarm, which is significantly lower than any traffic fine.

Enhanced Public Education

In the vast majority of cases, alarm owners are ignorant of the problems and issues surrounding false alarms. Alarm companies provide alarm owners with little or no information when an alarm is installed. In many cases, the alarm company does not have a vested interest in reducing the number of alarms – only in maximizing profits. There are several methods by which to enhance public education:

1. Develop a false alarm information sheet and require alarm companies to provide copies to each new subscriber. Alarm installers should be required to cover the material with the alarm owner at the time of installation.
2. Develop brochures or door-hangers that officers can leave at the scene of false alarms.
3. Provide classes for citizens regarding the management of their alarms. In some cities such as Phoenix, a class could be taken in lieu of the first fine.

The Phoenix Police Department maintains that public education in conjunction with a more efficient fine system substantially contributed to the reduction in false alarms.

This section of the report examined the various options that have been used by police departments to better manage false burglar alarms. Essentially, there are six directions police departments can take, and each has its advantages and disadvantages. The following section examines the data and information provided by the departments participating in this study.

Enhanced Management of False Alarms

Using a computerized or semi-automated system to improve record keeping may enhance the effectiveness of recovering costs for false alarms. However, if fines are set too low (near \$50.00) there is little impact on alarm owner behavior. False alarms are unlikely to decline.

Enhanced Public Education

Phoenix Police Department maintains that public education in conjunction with a more efficient fine system (computerized) led to a substantial decline in false alarms.

III. SAN BERNARDINO COUNTY FALSE ALARM RESPONSE
SURVEY: RESULTS AND ANALYSIS

In June 2006, professors from the Center for Criminal Justice Research at California State University-San Bernardino developed a False Alarm Response Survey Instrument in partnership with the Fontana, Ontario and Redlands Police Departments. The survey was designed to gather information from law enforcement agencies serving communities in San Bernardino County to understand the resource drain placed on agencies by alarm response policies.

The survey was disseminated via email to all members of the San Bernardino County Police Chiefs and Sheriff's Association. Ten police departments returned the survey, we were able to use the data provided from nine of these departments (See Table 1).

The data in Table 1 show that there is wide variation in the number of patrol officers per 100,000 residential population in the nine cities. The data reveal substantial variance in patrol coverage. Rialto has the lowest patrol coverage with about 40 officers per 100,000 and San Bernardino has the highest rate of 155 officers per 100,000 residential population.

**Alarm Response Ordinance/
Policies & Registration Information**

All nine departments are currently the first responder for residential burglary alarms and there is a fine system in place for false alarms. None of the responding departments have a verified response policy.

The false alarm ordinances/policies in these jurisdictions have been in effect from 1979 to as recently as 2004 (see Table 2). In six of the nine jurisdictions, residential alarms systems are required to be registered. Estimates are that between 50 and 95 percent of residential alarms are in fact registered in these jurisdictions (average 66%), with the reported fee for registration ranging from \$15.00 to \$35.00 with the most frequent charge being \$25.00.

Table 1. Responding Departments

Department	Residential Population 2005 ^a	N Sworn Officers in Patrol 05-06 Fiscal Yr.
Barstow	23,684	21
Chino	76,547	40
Fontana	159,769	72
Montclair	35,479	35
Ontario	171,186	83
Redlands	70,145	35
Rialto	100,321	40
San Bernardino	199,723	155
Upland	74,014	65

^a As reported in UCR 2005

Police in jurisdictions are 1st responders to alarms and use a fine system to deal with repeat false alarms.

On average, about 66% of residential alarms are registered.

Table 2. Year of Alarm Ordinance/Policy Enactment and Alarm Registration Information

Department	Year Alarm Ordinance/Policy Enacted	Res. Alarm Registration Required	% Res. Alarms Registered (Est.)	Res. Registration Fee \$
Barstow	1997	Yes	50	25.00
Chino	1990	No	-	-
Fontana	2001	No	-	-
Montclair	1982	Yes	60	-
Ontario	2004	Yes	75	25.00
Redlands	2000	No	-	-
Rialto	1986	Yes	95	15.00
San Bernardino	1982	Yes	50	25.00 ^a
Upland	1979	Yes	-	35.00

^a Residential low income registration fee is \$10.00 per year

False Alarm Activation Fine Policies

In seven of the nine jurisdictions, fines for responding to false residential or commercial burglary alarm activations are assessed on either the third (N= 3) or fourth (N= 4) false alarm in a 12 month period or fiscal year (See Table 3). In six of the nine jurisdictions, the fine for false residential and commercial alarms is equal. Two jurisdictions (Ontario, Rialto) assess a higher fine for false commercial alarms. Initial fines range from \$40 to \$100. Five of the nine jurisdictions increase fines for false residential or commercial alarms on subsequent false activations. In four of these jurisdictions the fine increases by \$25.00 for each subsequent false alarm. In the fourth jurisdiction (Chino), the fine roughly doubles for each subsequent false alarm within a fiscal year.

Many jurisdictions have fines lower than \$75.00; this may be too low to act as a deterrent.

Fines are not assessed until after the 3rd alarm or later. Assigning fines upon the second false alarm would defray the cost of police. Resources.

Table 3. False Alarm Fine Policies

Department	Fine on False Alarm #	Residential			Commercial			
		1 st Fine (\$)	2 nd Fine (\$)	3 rd Fine (\$)	Fine on False Alarm #	1 st Fine (\$)	2 nd Fine (\$)	3 rd Fine (\$)
Barstow	3	50.00	75.00	100.00	3	50.00	75.00	100.00
Chino	4	40.00	75.00	150.00	4	40.00	75.00	150.00
Fontana	4	63.00	63.00	63.00	4	63.00	63.00	63.00
Montclair	4	50.00	50.00	50.00	4	50.00	50.00	50.00
Ontario	3	50.00	75.00	100.00	3	75.00	100.00	150.00
Redlands	3	100.00	100.00	100.00	4	-	-	-
Rialto	3	75.00	100.00	125.00	3	100.00	150.00	200.00
San Bernardino	5	75.00	75.00	75.00	5	75.00	75.00	75.00
Upland	2	50.00	75.00	100.00	2	50.00	75.00	100.00

^B Upland waives the fine for the first alarm if the alarm is registered but does not distinguish between residential and commercial alarms. If the alarm is not registered there is a fine of \$25.00 for the first alarm.

False Alarm Fine Collection

Three of the nine jurisdictions report the generation of fine notices and the collection of funds is the responsibility of the city government (See Table 4). Four jurisdictions report the responsibility is shared by the police department and city government, while in the remaining two jurisdictions the police department is solely responsible. The percent of residential fines collected is estimated to range from 50 to 100 percent (mean= 72%), while estimated collection of commercial fines ranges from 68 to 100 percent (mean = 74%). In eight of the nine jurisdictions, the city general fund receives the fines collected. In one department the fines go to the police department budget (Rialto). The majority of respondents (N=5) estimate that the fine and collection process is costing the police department or the city more than it is generating, but three respondents estimate that the process is generating a surplus. It should be noted that this process is extremely labor intensive with substantial costs.

Only 2 jurisdictions estimate %100 collection of fines.

- **In 4/9 jurisdictions the city generates fine notices.**
- **Most fines are received by the city.**

Information management deficiencies may contribute to inefficient collection. Collection systems should be reviewed.

Table 4. False Alarm Fine Collection

Department	Generation of Notices & Collection of Funds	% Res. Fines Collected (Est.)	% Comm. Fines Collected (Est.)	Fines Received by
Barstow	Police Dept.	95	95	City General Funds
Chino	City Govt.	-	-	City General Funds
Fontana	City Govt.	76	76	City General Funds
Montclair	Other	80	75	City General Funds
Ontario	City Govt.	100	100	City General Funds
Redlands	Other	100	100	City General Funds
Rialto	Other	80	80	Police Dept. Budget
San Bernardino	Police Dept.	50	70	City General Funds
Upland ^A	Other	68	68	City General Funds
Mean	-	72.11	73.78	-

^AUpland's system does not distinguish between residential and commercial alarms.

Effectiveness of Alarm Ordinance in Reducing False Alarms

Only three of the responding departments (Ontario, Fontana, and Rialto) report that enactment of the alarm ordinance achieved a desirable reduction in the number of false alarms. Ontario's ordinance was enacted the most recently (2004); they report a 15 percent reduction in the number of false alarms. Fontana's ordinance (enacted in 2001), is reported to have achieved a 10 percent reduction in the number of false alarms. No numbers are available for Rialto (1986). The remaining jurisdictions report that their ordinances have not achieved a desirable reduction in the number of false alarms, but all ordinances were enacted prior to 2001. There are no apparent differences in response policy, registration requirements or fine

While some jurisdictions show marginal effectiveness in alarm reduction with the enactment of alarm ordinances, most have not had satisfactory reductions in alarm calls.

systems between departments that report a desirable reduction in false alarms and those that do not that might be considered to account for the reduction (i.e. Both Ontario and Fontana report desirable reductions in the number of false alarms, Ontario requires alarm registration, Fontana does not, Ontario increases fines for repeat false alarms, Fontana does not etc.).

Current Alarm Statistics

Tables 5 and 6 display statistics reported by departments for the period July 1, 2005 through June 30, 2006. In Table 5, Residential and Commercial alarm activations account for between one and 12 percent of all calls for service (mean = 6%). Departments were requested to report the number of alarm activations (column 4) and the number of burglaries as measured by reports (column 5). The sixth column indicates that between 97.8 (Barstow & San Bernardino) and 99.7 percent (Fontana) of alarm calls are false alarms (mean = 99%).

Most alarms are false. For cities in San Bernardino County, an average of 99% of burglar alarms are false.

Table 5. Residential and Commercial Alarm Activations as a Percent of all Calls for Service, Number of Alarm Activations and False Alarms, July 1, 2005-June 30, 2006

Department	City Population ^a	Alarm Calls as % of all Calls for Service	# of Alarm Activations	# of Burglary Reports	% Alarms that are False ^b
Barstow	23,684	3.50	1,146	25	97.82
Chino	76,547	5.20	4,558	42	99.08
Fontana	159,769	7.50	8,529	22	99.72
Montclair	35,479	4.40	1,876	24	98.72
Ontario	171,186	1.00	9,701	86	99.11
Redlands	70,145	7.00	4,541	36	99.21
Rialto	100,321	6.52	4,840	38	99.22
San Bernardino	199,723	12.00	12,216	266	97.82
Upland	74,014	5.00	3,608	5	99.86
Sum			51,015	544	
Mean	101,208	5.79	5,668	60	98.95

^a City population as reported in UCR 2005
^b % Alarms that are False = Proportion of alarm activations that did not result in a burglary report.

As a note to Table 5, research indicates that nationally about 99 percent of alarm activations are false. It appears that the cities in San Bernardino County are consistent with national findings.

Table 6 broadens the information contained in Table 5. Table 6 reports the number of burglary reports, burglary arrests, other reports, and other arrests. Other reports of arrests include information for offenses other than burglary. For example, officers might encounter a vandalism, assault, or domestic violence violation once they respond to a burglar alarm.

On average, an arrest is made in response to a burglary alarm 0.08% of the time.

There were 544 actual burglaries in the nine cities. This led to 60 arrests. Two points can be made. First, alarms resulted in arrest in only 7.9 percent of cases where there was an actual burglary, and second, there were burglary arrests in only 0.08 percent of all alarm activations.

The data are striking. For example, Fontana only made seven total arrests from 8,529 alarm activations. Ontario made six total arrests for 9,701 alarm activations.

Table 6. Number of Report and Arrest Dispositions from Residential and Commercial Alarm Responses, July 1, 2005-June 30, 2006

Department	BURGLARY		OTHER	
	Number of Reports	Number of Arrests	Number of Reports	Number of Arrests
Barstow	25	4	2	-
Chino	42	4	-	-
Fontana	22	1	12	6
Montclair	24	2	0	3
Ontario	86	1	7	5
Redlands	36	3	11	0
Rialto	38	3	25	3
San Bernardino	266	25	-	-
Upland	5	-	-	-
Sum	544	43	57	17
Mean	60	5	10	3

Table 7 presents the time and cost allocated to responding to *false* residential and commercial burglary alarms by department. Only Fontana, Ontario and San Bernardino report having previously formally evaluated the impact of the alarm ordinance/policy on police resources. The average time in minutes spent responding to a false alarm activation ranges from 4.72 minutes to 25 minutes (mean=17). This translates into an average of 1,602 hours per year responding to false alarms. In eight of the nine jurisdictions two officers are required to respond to an alarm call, thus the cost per year to respond to false burglary

On average, each jurisdiction spends \$171,845 per year dealing with false alarms.

alarms ranges from \$20,253 (Barstow) to \$ 409,949 (San Bernardino).

Table 7. Time and Cost Allocated to Responding to False Residential and Commercial Burglary Alarms July 1, 2005-June 30, 2006

Department	N False Alarms	Avg. Min/Response ^a	Hours/Yr. Responding to False Alarms	Avg. Hourly Cost of Patrol Officer ^b (Est.)	Cost/Yr. for One Officer Response to False Alarms	N Officers Required to Respond to Alarms	Manpower Cost/Yr. for Response to False Alarms
Barstow	1,121	25.00	467	\$44.80	\$20,925	1	\$20,253
Chino	4,516	14.48	1,090	\$100.10	\$109,055	2	\$218,190
Fontana	8,507	16.77 ^c	2,378	\$53.75	\$127,802	2	\$255,603
Montclair	1,852	4.72	146	\$41.27	\$6,013	2	\$12,025
Ontario	9,615	11.40	1,827	\$54.39	\$99,362	2	\$198,725
Redlands	4,505	24.16	1,725	\$63.50	\$109,538	2	\$219,075
Rialto	4,802	15.00	1,200	\$46.00	\$55,223	2	\$110,446
San Bernardino	11,950	22.00	4,382	\$46.78	\$204,974	2	\$409,949
Upland	3,603	20.00	1,201	\$43.44	\$52,171	2	\$104,343
Sum	50,471	153.53	14,416	\$494.03	\$78,5073		\$1,546,609
Mean	5,608	17.06	1,602	\$ 54.89	\$87,230	-	\$ 171,845

^a Time between dispatch and clearing the call

^b Including fringe benefits

^c Mean of average min per residential response and average min per commercial response

Table 8 provides a breakdown of the crime rates in the various responding cities using the Federal Bureau of Investigation's Uniform Crime Reports. It appears that based on a comparison between the 2004 and 2005 data, the rate of property crime is declining in all cities except Fontana, Redlands, and Upland with Redlands having a significant increase. Most likely, it will be difficult for a chief to convince the city to adopt a verified alarm response policy if burglaries are on the increase.

Table 8. Changes in Crime Rates in the Study Cities

Department	City Population 2005 ^a	Number of Burglaries 2005 ^a	Burglary Rate/100,000 2005	% Change in Burglary Rate 2004/2005 ^b	% Change in Property Crime Rate 2004/2005	% Change in Violent Crime Rate 2004/2005
Barstow	23,684	305	1,287.79	+0.86	-3.57	+8.25
Chino	76,547	521	680.63	+7.65	-2.02	-22.03
Fontana	159,769	782	489.46	+3.73	+0.60	-10.76
Montclair	35,479	253	713.10	-4.26	-8.33	-9.05
Ontario	171,186	991	578.90	+0.03	-5.92	-13.47
Redlands	70,145	553	788.37	+3.47	+18.01	+3.18
Rialto	100,321	715	712.71	+6.34	-0.81	-20.00
San Bernardino	199,723	2,525	1,264.25	-1.76	-1.70	-5.75
Upland	74,014	466	629.61	+4.72	+0.30	-7.80

^a As reported in UCR 2005

^b Percent Change in Volume and Rate per 100,000 Inhabitants 2004/2005

On the other hand, it appears that violent crime is declining in all cities except Barstow, and Redlands. An increase in violent crime would provide additional justification for a change to a verified alarm response policy, although it is not the sole justification for a change in policies.

San Bernardino County False Alarm Response Survey: Summary of the Results

All nine responding departments characterize their residential burglary alarm response policy as first responder to alarm calls with a fine system for false alarms.

- In 6/9 jurisdictions registration is required for residential burglary alarms.
- In 5/9 jurisdictions a fee is required for residential burglary alarm registration.
- Fines for false burglary alarms are assessed on the, 2nd false alarm (N=1), 3rd false alarm (N= 3), 4th false alarm (N=3), 5th false alarm (N=1) or 8th false alarm (N=1); fines generally increase with subsequent alarms (5/9 jurisdictions).
- In 2/ 9 jurisdictions commercial false alarms are fined at a higher rate than residential false alarms.

Summary of the Results Continued

The generation of fine notices and collection of fines is the responsibility of the city government in 3/9 jurisdictions; responsibility is shared by city government and police department in 4/9 jurisdictions, police department has sole responsibility in two jurisdictions.

- Between 50% to 100% (Mean = 72%) of false residential burglary alarm fines are collected.
- Between 68% to 100% (Mean = 74%) of commercial false burglary alarm fines are collected.
- Usually the City General Funds receive the fines generated by false burglary alarms.

Alarm calls account for between 1% and 12% of all calls for service (Mean = 6%).

- On average, 99% of burglary alarms are false.
- Only 0.08% of burglary alarm responses result in a burglary arrest.
- Responding to false burglary alarms (from dispatch to clearing the call) takes between 4.72 min. to 25.00 min. (Mean = 17.06 min.).
- Average hours per year consumed responding to false burglary alarms ranges from 146 hrs. to 4,382 hrs. (Mean = 1,602 hours).
- The manpower cost per year for 2-officer response (8/9 jurisdictions) to false burglary alarms ranges from \$12,025 to \$409,949. (Mean = \$171,845).

IV. SUMMARY AND CONCLUSIONS

This study was commissioned by several police departments in San Bernardino County with the researchers meeting with representatives from the Fontana, Ontario, and Redlands Police Departments. The purpose of the study was to identify options and supporting data for altering police departments' false alarm policies. It was realized that several of the departments are contemplating pursuing a verified alarm response policy, but there are also departments that wish to examine current policies and possibly adopt changes that may reduce the number of false alarms without adopting a verified police response, which is wrought with political problems. Thus, it is the intent of this report to identify all options and allow departments to make informed decisions on the direction to pursue. Also, the researchers will work with chiefs and departmental staff to fashion a policy for presentation to city officials. The researchers will avail themselves to make presentations when needed.

The research to date supports a verified police response to alarms as the most efficient method of responding to alarms. A verified police response substantially reduces the number of alarm calls to police departments without posing a significant level of danger to the public. Indeed, it can be argued that a verified response does not increase public danger or increase safety problems. Cities where a verified response has been adopted have not witnessed increases in burglary or other crimes as a result of the policy change. However, as noted, alarm companies will exert every effort including public fear tactics to ensure that this policy is not adopted by a police department.

Short of a verified police response, there are other measures that a department should consider. In essence, it is in a department's best interest to adopt policies that reduce the number of false alarms in a jurisdiction. It was found in the current study that approximately six percent of all calls for service are false alarms, and about 99 percent of such calls are false. As discussed above in this report, there are three areas where departments can take action that possibly will reduce the number of alarms: 1) better recordkeeping for false alarms, 2) levying fines on the second false alarm and increasing the amounts of the fines, and 3) public education.

A fourth issue must also be raised. At this junction we do not know the percentage of cases where alarm companies are actually attempting to contact alarm owners prior to notifying the police. There may be a percentage of cases where the alarm company notifies the police without attempting to call the alarm

owner. Police departments should consider surveying a random sample of alarm calls to determine if this is occurring. If so, stringent enforcement of alarm company procedures may lead to a reduction in calls.

V. APPENDIX: SURVEY

FALSE ALARM RESPONSE SURVEY

To Whom It May Concern:

We are requesting your participation in a survey designed to collect information on false alarm responses of agencies located in San Bernardino County. This survey is being sent to all agencies in this service area. The impetus for this research is that the San Bernardino Association of Chiefs of Police and Sheriff are considering the feasibility of recommending a model policy on alarm response. Prior to discussing this matter, it is important to discover how agencies currently respond to false and to what extent they are satisfied with their current policies.

The attached survey takes approximately 20 minutes to complete if you have your current false alarm statistics available. Data collected from this survey will be used to better understand the resource drain placed on agencies. It is also our intent to identify agencies with very effective programs that may want to share their experience with other departments. Information that is collected will be contained in a report that will be shared with all police departments and the Sheriff's Department in San Bernardino County.

The Institutional Review Board of California State University, San Bernardino, has approved this survey. Your participation in this study is voluntary. If you decide to complete the survey, you are not obligated to answer any survey questions in the future. The aggregated responses will be presented to the San Bernardino County Association of Police Chiefs and Sheriff. Additionally, the report may contain tables containing data and information for specific agencies. The resultant report will be distributed through the San Bernardino Chiefs of Police and Sheriff's Association. If you have any questions or concerns, you may reach Dr. Larry Gaines at (909) 537-5508 or lgaines@csusb.edu.

Thank you.

Larry K. Gaines, Ph.D.
California State University, San Bernardino
For Research Purposes Only

False Alarm Response Survey

Fontana Police Department, Ontario Police Department, and Redlands Police Department,
in partnership with the Center for Criminal Justice Research
Department of Criminal Justice, California State University, San Bernardino

Revised June 2, 2006.

This survey was designed to gather information from law enforcement agencies servicing communities in San Bernardino County. The purpose of this project is to better understand the resource drain placed on agencies by alarm response policies. It is also our intent to identify response policies that are more effective. The survey will take about 20 minutes to complete if you have your false alarm statistics available. You may choose to terminate your involvement with this project at any time. Your participation is voluntary. This survey was approved by the Institutional Review Board of California State University.

Once you have completed this survey, you can return it to the research team in one of three ways:

- a. fax the completed survey to: C/O Dr. Larry Gaines at 909-537-7025
- b. email the survey to: lgaines@csusb.edu
- c. mail the completed survey to:

False Alarm Response Survey
C/O Larry Gaines, Chair
Department of Criminal Justice
California State University, San Bernardino
5500 University Parkway, San Bernardino, CA 92407

Alarm Response Policy Information

1. Name of Law Enforcement Agency completing survey _____
2. On average, how many sworn officers were working in the patrol division during this past fiscal year (July 1, 2005 to June 30, 2006)? _____
3. Please estimate the average hourly cost of a patrol officer including fringe benefits: _____
4. How many officers are required to respond to an alarm call? None One Two
5. On average, how many officers typically respond to alarm calls? _____
6. How would you characterize your alarm response policy for **residential burglary alarms** (excluding panic alarms)? (select **one** answer):
 - first responder to alarm calls with no fine system
 - first responder to alarm calls with a fine system for false alarms
 - verified response (phone verification by alarm provider)
 - verified response (physical check by alarm provider)
 - other _____ (please explain)

7. Is your agency currently considering making adjustments to your alarm response policy?

- Yes No

If so, why are you considering a change? _____

What are you changing? _____

8. Does your jurisdiction have a false alarm ordinance/policy in place? Yes No

If no, please continue to question 24.

If yes, please answer the following questions about your ordinance:

9. Date ordinance/policy was enacted: _____

10. Has the alarm ordinance achieved a desirable reduction in the number of false alarms?

- Yes If yes, what percent _____% decrease? No

11. Has your agency formally evaluated the impact of this ordinance/policy on police resources?

- Yes No

12. Do you require individuals to register their residential alarm systems (permit required)?

- Yes No

13. If registration/permit required, what percent of alarms do you estimate are actually registered? _____

14. If registration/permit required, amount of fee \$_____

15. Are individuals fine for false residential burglary alarms? Yes No
16. If yes, fines are assessed on the _____ false residential alarm in a 12 month period.
(Insert Number)
17. Are businesses fined for false commercial burglary alarms? Yes No
18. If yes, fines are assessed on the _____ false commercial alarm in a 12 month period.
(Insert Number)
19. In some jurisdictions, the amount of fine increases with the number of false alarms within a 12 month period. What is the fine for the first and subsequent alarms after the alarm threshold has been reached?
- a. Amount of first fine during a 12 month period (residential) \$ _____ b.(commercial) \$ _____
- c. Amount of second fine during a 12 month period (residential) \$ _____ d.(commercial) \$ _____
- e. Amount of third fine during a 12 month period (residential) \$ _____ f. (commercial) \$ _____
20. How are the fine notices generated and funds collected?
- Police Department City Government Other _____
21. What percent of fines do you estimate are collected? (residential) ____% b. (commercial) ____%
22. What unit of government receives these fines?
- Police Department budget City general funds Other _____
23. Generally, would you estimate that the fining and collection process is:
- breaking even in terms of resources expended and funds generated
- costing the police department or the city more than it is generating
- generating a surplus
- other: _____
(please explain)

The next series of questions require some detailed information about the number of calls for service that your agency received during the July 1, 2005 to June 30, 2006 fiscal year. Answering these items may take some time if the information needs to be generated. **If only partial information is available, please include what you can.**

24. Police departments generally use a priority system when dispatching calls.
- a. How many levels does your system use? _____
- b. With "1" being the highest priority, what priority are unverified burglary alarms? _____
- c. Within the priority level where alarms fall, what percent of other calls within this level are dispatched before unverified alarms? _____ %

Please examine your CAD calls for the past year—**July 1, 2005 to June 30, 2006**—and indicate the total number of calls for each category.

	a. Residential Burglary Alarm Activations	b. Commercial Burglary Alarm Activations	c. Panic or Robbery Alarm Activations
25. Number of Alarm Activations (from the calls for service data system)			
26. Alarm Calls as a % of ALL calls for service			
Alarm Call Disposition			
27. Number of False Alarms			
28. Number of Burglary Reports			
29. Number of Other Reports			
30. Number of Burglary arrests			
31. Number of Other arrests			
32. Number of addresses with repeat alarm calls for service (July 1, 2005 - June 30, 2006)			
33. Average time (in minutes) officers spend responding to <u>false</u> alarm calls (time between dispatch and clearing the call)			

34. The San Bernardino Association of Chiefs of Police and Sheriff is considering the feasibility of adopting a model policy on alarm response. If such a position was developed, would you be interested in participating in the development process?

- Yes No

If you do not want the information from your department contained in the report, please mark the box .

Thank you for taking the time to complete this survey.

Results will be presented at an upcoming San Bernardino County Police Chiefs Association meeting.