

Assessing Available Research on the Effects of Verified Response Policies

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I have reviewed available articles and data pertaining to assessments of the impact of verified response policy on various outcomes. These outcomes included number of responses to intrusion alarms, response time to intrusion alarms, burglary rates and so forth. The forward text lays out my understanding of the findings to date, thoughts on problems with the focus of available analyses, impressions of inadequacies in available data, and suggestions for needed improvements to research methods in this area.

Existing Analyses of the Impact of Verified Response Policy

At present, analyses of the impact of verified response practices¹ are sufficient to establish the obvious. Namely, if a policy is put in place where law enforcement is advised not to respond to all intrusion alarms when prior to that policy they did respond, by default, the number of law enforcement responses to false alarms will decrease. One does not need data to know that law enforcement resources will be saved as a result.

Another outcome, by default, of verified response policies would have to be that law enforcement may not have timely responses to as many crimes that trigger intrusion alarms as they did prior to implementation of verified response. The Eugene report (referenced in Footnote 1) shows data supporting this, in spite of the authors' attempts to suggest that verified response increases efficiency without negatively impacting effectiveness.

The Eugene report argued that verified response improves law enforcement efficiency and effectiveness because they only respond to calls where a witness reports that an intrusion appears suspicious. As a result, a higher percentage of law enforcement responses results in crime reports, a measure that is used by verified response advocates as evidence of improved efficiency and effectiveness in use of law enforcement time. For example, the Eugene Police Department memorandum reports that between the years before and after implementation of verified response, "the rate doubled" in the percentage of calls that resulted in crime reports. In the year preceding November 2002, 88 of 5287 intrusion responses (1.7%) by police resulted in crime reports. In November 2003, 11 of 396 police responses (2.8%) to intrusion alarms resulted in a crime report being taken.²

¹ Eugene Police Department Operations Support April 8, 2004 Memorandum, "12-Month Review of Verified Response Alarm Policy" • Salt Lake City Police Department write-up of "Verified Response: The False Alarm Solution" (no date).

² When one looks at the percentages, the proportion of police responses resulting in taking of a report does increase from 1.5% in 2001 to 1.7% in 2002 to 2.8% in 2003. This is less than the "doubled" effect reported in the Eugene memorandum because only the 2003 figure was rounded to the hundredths rather than the thousandths column. In reality, the rate did not double. Regardless, the data points being compared are too few to make anything statistically or strategically of this small percentage point difference.

The small percentage point difference between 1.7 and 2.8 is of no practical significance. The dramatic reduction in the absolute number of valid intrusion alarms for which a crime report was filed, at least in a timely manner, after implementation of verified response is of practical significance. In Eugene, at the end of 2002, police records showed 88 responses to valid intrusion alarms. At the end of 2003, police records showed only 11 responses to valid intrusion alarms.

This means that in Eugene, following implementation of verified response policies, the number of valid (i.e., not false) intrusion alarms for which crimes were documented for investigation and prosecution in a timely fashion, if at all, decreased by 90%. It is implausible that the reduction in law enforcement response was due to a 90% decrease in the rates of any of the crimes such as burglary, trespassing, or vandalism that could have triggered the response. It is also implausible that Eugene law enforcement personnel were mistaken about the occurrence of a crime in nearly 90% of the crime reports they filed in the year preceding implementation of verified response when they were still responding to intrusion alarms.³

Looking at the data this way, one has to be concerned that most intrusion alarm-related crimes that would have received certain and timely law enforcement attention before verified response are being relatively neglected as a result of the policy. Consequently, verified response policies may ultimately result in a higher rate of intrusion-related crimes due to undermining the deterrent effect of certainty and timeliness of detection and response.

Quality of Available Research on the Effects of Verified Response on Crime Rates

To highlight the positive value of verified response policies beyond the obvious impacts on law enforcement resources, the Salt Lake City memorandum (see Footnote 1) tried to show that these policies have no effect on crime rates. The data and analyses, however, are insufficient to draw any reliable conclusions about the presence or absence of an impact on crime rates from implementation of verified response policies and practices. They are deficient in at least two ways: 1) outcomes used to indicate positive or negative impact of verified response policies, 2) insufficient data for measuring the effects of verified response policies on crime rates.

Problems with Outcomes Used to Show Effects of Verified Response Policy. The current trend in evaluating the effect of verified response on crime rates is to focus on Uniform Crime Reports (UCR) of burglary. As the Eugene PD memorandum points out, however, many of the crimes that result in a crime report following response to an intrusion alarm are not burglary reports. Drug activity, vandalism, and trespassing may

³ The question then becomes whether the benefit of reducing police responses to false alarms outweighs the negative impact on timely police intervention valid intrusion alarms. In deciding whether to implement verified response, this looks like a trade-off of between reducing waste of police time by 90% and reducing timely police response to valid intrusion-triggered crimes by 90%. Is there an alternative solution?

actually be more common crimes. Therefore, an objective assessment of the effects of verified response on crime would also need to take into account these types of offenses.

Problems with the Sufficiency of Data for Measuring the Effects of Verified Response Policies on Crime Rates. The authors of the Salt Lake City report compared Salt Lake City’s burglary rate after implementation of verified response with comparable cities that do not have verified response. Only seven cities were compared. Of these seven cities, three including Salt Lake City had an increase in UCR burglary rates between 2001 and 2002 (see Table 1). The inference is that since two cities without verified response policies also had increases in burglary rates, one cannot conclude that the Salt Lake City increase is due to the implementation of verified response.

Table 1
Percentage Change in Number of Burglaries Per 10,000 in Cities Comparable to Salt Lake City

<i>City</i>	<i>% Change 1999-2000</i>	<i>% Change 2000-2001</i>	<i>% Change 2001-2002</i>
Fort Wayne, IN	18.1	-7.5	-0.1
Huntsville, AL	-9.7	9.1	-11.4
Madison, WI	-8.6	9.8	16.3
Montgomery, AL	8.8	-7.7	11.7
Rochester, NY	-10.4	-10.0	-0.4
Salt Lake City, UT	-4.7	-1.1	13.0
Shreveport, LA	-15.8	1.3	-2.8

The Salt Lake City dataset is insufficient for any conclusions about the relationship between verified response and burglary rates. More cities, more time points, and more and better controlled dependent variables would need to be available for this type of method to have a chance of reliably showing whether, all other things being somewhat equal, changes in crime rates post-implementation were a) significantly different from rates of change prior to implementation for the same cities and b) significantly different than change observed in cities without verified response.

Another option is to compare changes in the rates of burglary statistics for other cities with verified response, regardless of how similar they are to Salt Lake City in terms of size of population, police force, or territory. As shown in Table 2, however, too little time has passed since the inception of verified response in almost all of the handful of cities that have implemented it to be able to collect data that could reasonably be expected to serve as the foundation of valid and reliable analysis. Given the recent onset (FY04) for most of the cities that have verified response, more years must elapse before sufficient data will be available. Individuals who claim that verified response results in "no significant change" in crime rates are premature in their assessments. Only statements of "we don't know yet" would be accurate.

Table 2
U.S. Cities with Verified Response Policies

<i>City</i>	<i>Effective Date</i>
Arvada, CO	3rd Quarter 2004
Broomfield, CO	1st Quarter 2004
Eugene, OR	2nd Quarter 2002
Lakewood, CO	2nd Quarter 2004
Nogales, AZ	2nd Quarter 2004
South Salt Lake City, UT	3rd Quarter 2004
West Valley, UT	1st Quarter 2001
Westminster, CO	2nd Quarter 2004
Yakima, WA	2nd Quarter 2004
Las Vegas, NV	?

Need for Better Research

More rigorous research methods need to be employed in the a) definition of outcomes used to measure effects of verified response, b) collection of data sufficient for assessing impacts of verified response, and c) analytic strategy used in the assessments. Part of a broader analysis should also compare the impact of alternative solutions to the problem of false alarms rather than just focusing on presence or absence of verified response policies.

Until valid research is available, decision makers should be wary of claiming or buying into claims that verified response policy is both 1) beneficial to the efficiency and effectiveness of law enforcement and 2) of no consequence in terms of crime rates. By focusing on these types of arguments, they neglect prudent consideration of problems associated with the 90% reduction in law enforcement response to valid alarms as seen in Eugene, Oregon. Decision makers also may be prematurely dismissing alternative means of effectively and fairly addressing the false alarm issue.

About Kelly Buck:

Dr. Buck is a sociologist with nearly 20 years experience in applied social science research. She has a bachelor's degree from Wichita State University and a master's and Ph.D. from Stanford University. She is currently a civil servant with the Department of Defense, Defense Personnel Security Research Center (PERSEREC), where she has conducted research since 1999. Prior to joining PERSEREC and the DoD, Dr. Buck was an organizational behavior consultant in Silicon Valley, a senior analyst for the Office of the Desegregation Compliance Monitor for the 9th Circuit Court of Appeals in San Jose, and a college instructor.