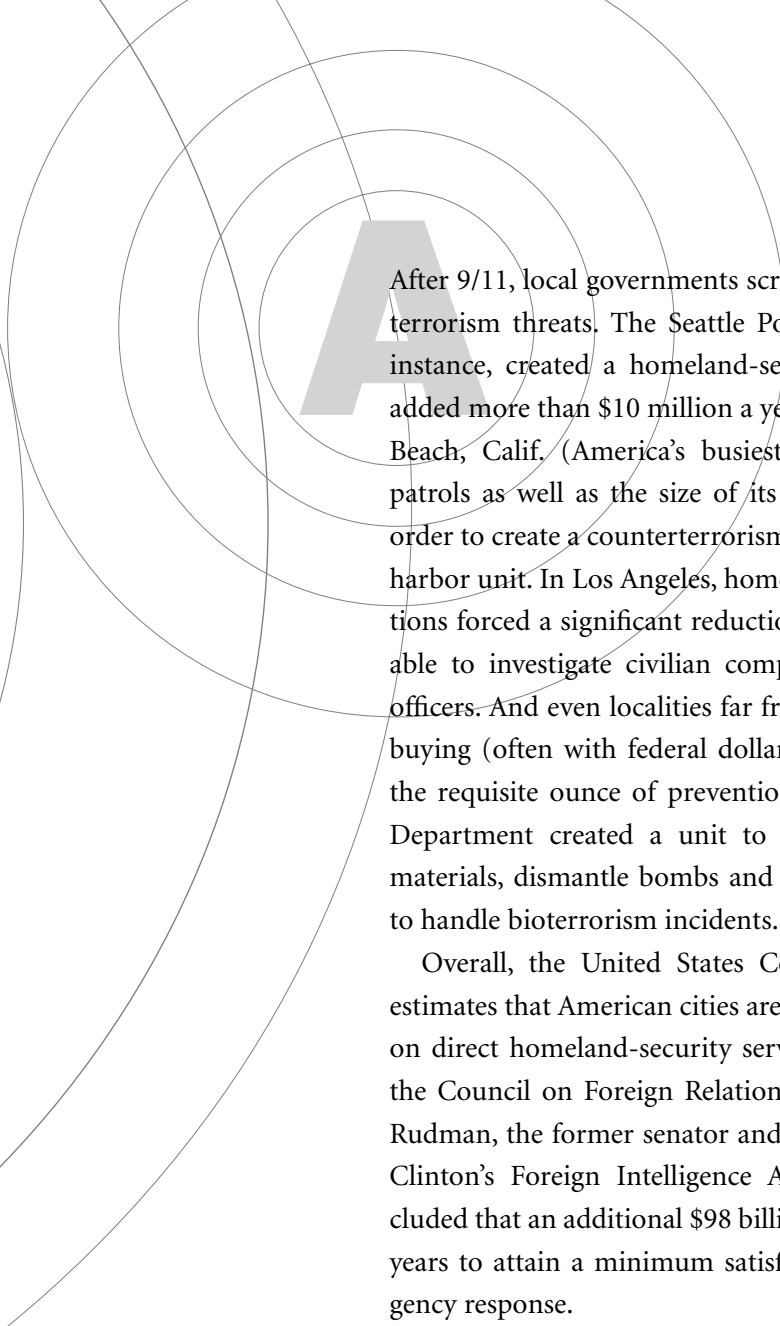




Funding *the* Local War on Terror

By Simon Hakim, Andrew J. Buck and Erwin A. Blackstone



After 9/11, local governments scrambled to respond to terrorism threats. The Seattle Police Department, for instance, created a homeland-security force that has added more than \$10 million a year to its budget. Long Beach, Calif. (America's busiest port) reduced foot patrols as well as the size of its narcotics division in order to create a counterterrorism unit and a dedicated harbor unit. In Los Angeles, homeland-security obligations forced a significant reduction in personnel available to investigate civilian complaints against police officers. And even localities far from power centers are buying (often with federal dollars) what they view as the requisite ounce of prevention: the Iowa City Fire Department created a unit to deal with hazardous materials, dismantle bombs and train first responders to handle bioterrorism incidents.

Overall, the United States Conference of Mayors estimates that American cities are spending \$3.5 billion on direct homeland-security services. And a study by the Council on Foreign Relations directed by Warren Rudman, the former senator and director of President Clinton's Foreign Intelligence Advisory Board, concluded that an additional \$98 billion is needed over five years to attain a minimum satisfactory level of emergency response.

With this magnitude of resources in mind, all eyes are aimed at the overcommitted federal budget to provide the cash. But fortunately, a close look at emergency services suggests that the need for additional public funds to get the job done may be much smaller than is generally perceived.

We would argue that billions of dollars worth of personnel and equipment now allocated to police, fire and other emergency-response agencies are devoted to

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services that are not appropriately public responsibilities, while other services these agencies offer could be provided at much lower cost by contracting them out to the private sector. The bottom line: as much as \$8 billion a year could be squeezed out of ambulance services, and police and fire departments, and redirected to antiterrorism activities without reducing public access to traditional services.

PUBLIC VS. PRIVATE GOODS

Economists call a service that is effectively provided to all when it is made available to anyone – like the umbrella of protection from terrorism – a “public good.” Free markets can’t be expected to provide public goods in adequate quantity, and thus efficiency demands that such goods be funded by government. But over time, government agencies nominally in the business of providing public goods have gained mandates to provide many services that are non-public in nature, satisfying private needs that generate few external benefits to the community as a whole. For example, fire departments often pump water out of homeowners’ basements and rescue stranded animals from trees. Police officers unlock cars and homes, remove unwanted animals, escort funeral processions and investigate traffic accidents that cause only minor property damage.

When services are free to the consumer, they tend to be overused. Think, for example, about false fire and burglar alarms on private property. Responding to a real burglary or fire serves the community as a whole. After all, there is a chance that a criminal will be apprehended, which reduces the active pool of

burglars and lowers the probability that others will become victims. In the case of an actual fire, the chance of spread to other properties is reduced. However, in the case of false responses, there are no external benefits to society; a private service is provided, diverting resources from other uses. Note, moreover, that when government provides such private services below cost to the consumer, it is difficult for private providers to compete and the potential gains from competition – pressure to keep costs low and to innovate – are lost.

THE ECONOMICS OF POLICE SERVICES

In 2004, public policing services employed 842,000 sworn officers, of whom 80 percent worked for localities, 12 percent for state governments, and 6 percent for the federal government. Roughly half of these men and women provided patrol services of one form or another. To estimate the percentage of police services that generated strictly private benefits, we looked closely at calls for service in four cities: Tempe and Maricopa, Ariz., Oxnard, Calif., and Kissimmee, Fla.

The calls were classified into truly public demands that required sworn officers (64 percent), public-good services that could be contracted out (18 percent), and private services that the police could appropriately shed (18 percent). For the last group, private provision – or self-provision by businesses and individuals – would be likely to develop in the absence of subsidized government services.

Examples of services that should be supplied by police include intervention in domestic violence, along with responses to violent crimes like robbery, assault, murder and rape, and nonviolent crimes with considerable external consequences, like identity theft. Some public-good services are amenable to competitive bidding and provision, including handling abandoned vehicles, pro-

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viding criminal information databases, enforcing parking rules and providing lost-and-found services.

Contracting was used in the United States as far back as the Civil War, when President Lincoln employed Allan Pinkerton, the founder of the famous Chicago detective agency, to provide military intelligence. Today, among their many duties, private security services guard prisoners, protect courtrooms and public infrastructure and enforce parking rules. The FBI has blessed other sorts of contracting out, including assistance at crime scenes, directing traffic, processing reports and investigating accidents. More generally, contracting out is practical when an adequate number of providers of similar services exist in the private sector, the output can be specified and measured, and the cost is known with reasonable certainty.

In many cases, the benefits have been impressive. The sheriff's department in Fresno, Calif. saved about 70 percent on the cost of transporting prisoners. Lakewood, Calif. saved 22 percent of the cost of processing crime scenes. We believe that the potential savings across all police jurisdictions would be about 30 percent. Since 18 percent of services qualify for contracting out, and 30 percent of their cost would be saved compared to employing sworn police officers, the savings would equal roughly \$1.15 billion annual, the cost of 3,000 patrol officers.

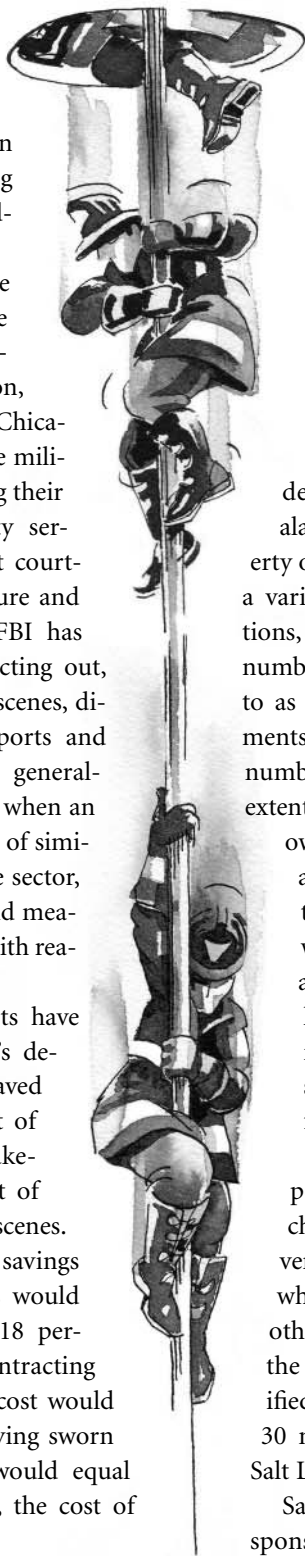
In the category of private services that police could shed, response to burglar alarms

ranks highest. Nationwide, 10 to 20 percent of all police responses were to burglar alarms, of which 94 to 99 percent are false. The 36 million responses to false calls annually in the United States had an average direct per-call cost to police departments of \$50, implying a total cost of \$1.8 billion.

Since the late 1980s, many police departments have combated false alarms – or rather, the failure of property owners to control false alarms – with a variety of measures. In some jurisdictions, fines are imposed after a certain number of false alarms a year, and escalate to as much as \$4,000; in others, departments cease responding after a certain number of false calls per year. To the extent that they increase the cost of alarm ownership, the practice of adding alarm registration requirements, threatening repeat alarm activators with incarceration and educating alarm owners are effectively equivalent to fines. Unfortunately, though, none of these tactics appear to have significantly reduced the number of false alarms.

A more efficient approach is for police departments to respond at no charge only to real burglaries. With verified response, the police arrive only when a private guard company or another designee at the premises confirms the need for them. As of June 2006, verified response has been adopted in some 30 municipalities, including Las Vegas, Salt Lake City, Milwaukee and Tucson.

Salt Lake City initiated verified response in December 2000. For all of 2000, the city's police responded to 9,439 alarms, of which only 64 were valid – a 99



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percent false alarm rate. In 2001, police responded to just 898 alarms. Verified response thereby saved almost 8,500 officer-hours, or more than \$500,000 in personnel costs alone. Moreover, there has been no apparent effect on crime rates; burglaries continued the decline Salt Lake has enjoyed since 1996.

Several companies entered the business of verifying need, with consumers paying as little as \$5 per month for the service. Interestingly, private response companies were responsible for more arrests of burglars than were the police. In all of 1999, police arrested five burglary suspects while responding to alarms, two of whom were charged only with other crimes. In just the first three months following the introduction of verified response, private security companies contributed to seven arrests. Meanwhile, with 911 calls reduced, police response time to high-priority crime decreased from five minutes to three. On average, alarm companies responded in 5 to 20 minutes in 2003, compared to an average police response time of 40 minutes in 2000 – before verified response was employed. More generally, verified response reduced the number of police officers dispatched to investigate

burglar alarms by 72 percent in the 15 municipalities that provided data.

An alternative to privatizing the initial response to alarms is for police departments to retain the responsibility for response, but to charge for the service at cost and not allow any free responses. This enables entry of private companies that might produce the service at lower cost, thereby increasing competition and permitting differentiation of product packages – for example, monthly pricing or per-response charges. This approach has been tried primarily in small suburban and rural communities, where police workloads are low and police departments want to continue to provide response service in order to maintain personnel levels or to cover overhead for purely public services.

Competition in such localities is often limited and the threshold for entry is high, making it difficult to create an efficient market. However, the principle of pricing at cost should be preserved, and entry of private companies should be allowed.

ECONOMIZING ON FIRE SERVICES

There were 1.1 million firefighters in 30,311 fire departments in the United States in 2003,



of whom some 300,000 were career employees and 800,000 were volunteers. The division is reliably small town/big city: in cities of more than one million, only 2 percent were volunteers. The 12 percent of departments that depend on paid firefighters protect 61 percent of the United States population.

In departments composed entirely of volunteers, false alarm responses impose costs similar to career departments, since even volunteers are paid based upon their incident-response rate. Moreover, it would appear difficult to retain volunteers when their lives are often disrupted by answering false alarms. Many departments are already experiencing great difficulty attracting enough volunteers.

Fire departments only became public agencies in the 19th century. Before that, only those who belonged to private fire associations received protection. Firefighters identified members by the insignias placed on protected properties.

In major cities, however, the close proximity of homes – notably row houses and apartments – led to the swift spread of fires. Thus, selective protection didn't work very well, and city governments were motivated to protect all residents by creating public fire depart-

ments. Another reason for the shift to public protection was that insurance companies paid bounties for extinguishing fires at insured properties. That led to frequent fights among responding private firefighters, who were eager to capture the bounty. Note one more reason for making fire protection public: the opportunity for urban politicians to offer patronage jobs to friends and supporters.

Fire departments provide public goods including fighting fires that could spread to adjacent properties, sharing responsibility for bomb threats with the police, removing hazardous materials, rescuing flood victims and coping with downed power lines. But their private services are also legion – unlocking cars, rescuing pets and the like. And fire departments are feeling the squeeze on resources: the number of calls for service rose 25 percent from 1997 through 2002, while budgets increased just 19 percent in real terms.

The composition of calls for service deserves scrutiny. In 2003, of the 8.8 million calls for non-medical emergencies nationwide, 29 percent were for fires, 12 percent for hazardous materials or conditions and 25 percent for false alarms. That left 34 percent for other sorts of demands, mainly for



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private services. From 1997 to 2002, all fire department calls increased 25 percent, while those linked to actual fires decreased 10 percent. False alarms increased 21 percent and other calls increased 26 percent. Private-service activities of fire departments, namely false alarms and other responses, accounted for 59 percent of the volume.

As with police responses, responses to false fire alarms are a private service, since no positive externalities are evident. Out of 3.8 million fire responses, 2.2 million, or 58 percent, of all fire calls are false. False alarms are caused by system malfunctions, unintentional calls, bomb hoaxes and mischief calls. The first two categories make up over 70 percent of all false calls. Automatic alarm systems have a 97 percent false alarm rate. The principle causes are system malfunctions (31 percent), smoke from cooking (27 percent) and other accidental activations (24 percent).

The police require – and industry trade associations encourage – businesses to verify every alarm before they request a police response. However, in the case of a real fire, lack of immediate response could cause a much higher loss of life and property. Thus, the typical practice is that verification must be completed within 90 seconds or a fire engine will be dispatched. Such verification usually does not take place, and even when a cancellation call reaches the fire department, a fire truck is often still sent to the scene.

Responses to fire alarms typically involve two pumpers, a ladder truck and a chief's car. The average cost for responding to a false call exceeded \$700, and in 2003 there were 2.2 million responses to such calls nationwide. Thus, the total direct annual cost to responding to false fire alarms runs to about \$1.3 billion. In addition, accidents linked to responding to false alarms at emergency speed cause

death, injuries and property damage. We estimate that 10 firefighters are killed annually while responding to false alarms at a social cost of \$13 million per firefighter, adding \$130 million to the annual cost. Other non-public responses made up 34 percent of the total 8.8 million responses at a (conservative) average cost of \$50. And \$50 multiplied by three million responses yields \$150 million. Thus, the total cost of non-public services that could be shed or properly priced by government providers is about \$1.6 billion. This savings could pay for an additional 32,000 terrorism responders.

Among the policies implemented to control false alarms are charging for excessive frequency, requiring verification of residential alarms and sending only one fire engine at emergency speed while others follow more slowly. Cost-based pricing, where no free responses are allowed and fire departments charge their full cost, would encourage private companies to sell comparable services. Private companies could respond with a small engine, and then call on public fire departments for backup assistance. Also, since there are probably economies of scope in first-response services, private emergency responders could probably provide the entire gamut of services shed by all local emergency public agencies. Last but not least, private fire departments could help serve peak demand – including antiterrorist response – as part of a reserve force.

AMBULANCE SERVICES

In 2004, some 192,000 Americans worked as emergency medical technicians and paramedics, of whom 40 percent were employed by private ambulance companies, 30 percent by fire departments and public ambulance companies, and 20 percent worked in hospitals or on hospital ambulances. Overall, 55

percent of fire departments, most commonly in large cities, provide ambulance services. There are also volunteers working in fire departments or separate ambulance companies in small towns. Roughly 3,900 businesses offered ambulance services in 2002, generating revenue of \$6.5 billion. The top four companies operated some 280 local services, yielding almost one-quarter of the industry's revenue.

Unnecessary ambulance responses are a significant problem. In a 1997 study of patients arriving at an urban university-affiliated hospital by ambulance, only 57 percent were judged to be true emergency cases. A 1998 study by the inspector general of the Department of Health and Human Services revealed that two-thirds of Medicare-reimbursed ambulance trips did not result in either emergency room treatment, hospital admission, or nursing home admission. In a 2003 study in Cincinnati, 33 percent of emergency ambulance responses were found to be for non-emergencies. In Great Britain, where ambulance services are provided at no charge to patients, half the trips are considered un-

necessary and only 78 percent of the patients are even routed to hospitals. A 2005 Canadian study of pediatric patients found that 36 percent of ambulance responses were either deferrable or did not result in transport.

Ambulance fees are often paid by medical insurance, including Medicare and Medicaid, thus exacerbating the problem of unnecessary use. Even patients who do not have medical insurance often call an ambulance so that they can more easily enter the emergency room and obtain prompt treatment. One study, in New York State, found that 38 percent of unnecessary ambulance trips occurred because of a lack of alternative transportation. Some public providers do not charge for the service and, when they do, find that the collection of fees is expensive or impossible.

Patients are often not informed about charges when services are requested, or simply believe the cost is less than it actually is. The New York State study showed that half of unnecessary ambulance users thought the cost was under \$100. Fees are often not collected even when calls are classified as false.



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The Cincinnati public ambulance provider collected only \$3.4 million of its \$7.9 million in charges in 2002.

Even when the ambulance paramedics have doubts that patients need emergency room services, they will transport them in order to avoid potential legal liability. Hence, under the existing system, there is little incentive to discriminate between needed and unneeded service, generating unjustified costs to both ambulance services and the hospitals that are forced to process non-emergency cases.

If, on the other hand, patients know that they will be charged for non-emergency service, they will have incentives to exercise restraint. Where the service is really needed, insurance will pay the bill. On the other hand, where the transport is very likely not needed and reimbursement will be denied, the patient is likely to think twice.

Nationwide, public fire departments made 13.6 million ambulance runs in 2003. Since fire departments perform 40 percent of all ambulance runs, total demand for ambulances was about 34 million trips. We use a very conservative estimate of a 25 percent false-response rate, yielding 8.5 million responses to false calls. Government insurance reimbursements offer an estimate of cost. In 1999, Medicare paid \$434 per response in the United States; in Toronto, Canada's health care system paid about \$300 per response in 2005.

Since ambulance service for non-emergency calls may not require the use of sophisticated equipment and may take less time, we chose to be conservative and estimate the cost for non-emergency patients to be just \$100. Thus, the annual cost of non-emergency cases in the United States is, at very least, \$850 million. Adding the cost of the five fatalities a year likely to occur in response to false calls





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yields an additional \$66 million, for an annual total social cost exceeding \$900 million. This translates into an additional 18,000 paid paramedics.

One approach to reducing waste in ambulance services would be to ask public providers to make greater efforts to collect fees. However, there is limited incentive for public workers to do so. And, as a result, private providers would not be able to compete at a profit. If, on the other hand, the services were contracted out, profits would then depend upon the collection of fees.

Contracting out may also lead to higher quality of service. In Pinellas County Florida, managed competition took the form of bidding among public and private providers for the exclusive right to provide emergency and non-emergency ambulance service in the county. Typically, three or four bids have been submitted for the five-year contract, which can be renewed for an additional six years upon satisfactory performance. Public fire departments in the county formed a consortium to bid two of the three times the contract was offered. In the 1998 bidding, the public fire department consortium offered the lowest quality and the highest price. The current recipient of the contract charges \$450 for each transport, has at least one paramedic in the ambulance, and must have 12 ambulances ready to respond at all times.

The private company with the current contract has cut almost one minute off the 7-minute average response time. Equipment and ambulances have significantly improved since managed competition was initiated, and qualified paramedics provide instructions over the 911 system prior to the arrival of the ambulance on the scene.

Savings from contracting out typically run between 5 and 10 percent. And the quality of

equipment typically improves: for example, 70 percent of private ambulances carry cardiac defibrillators, compared to only 48 percent of public ambulances. Assuming just 5 percent savings on 25.5 million valid emergency calls at an average cost of \$434 yields annual savings from contracting out of some \$550 million. These savings translate into more than 11,000 first responders.

THE SILVER LINING

Eliminating responses to false alarms by police, fire and ambulance services could alone save over \$4 billion annually, or pay for more than 80,000 additional first responders. Elimination of other nonpublic-good activities could save \$2 billion or free 40,000+ first responders. Contracting out could save \$1.7 billion or add the equivalent of 34,000 first responders. The total savings, conservatively estimated at \$40 billion over five years, suggests that 40 percent of the required \$98 billion to meet the minimum level of first response could be obtained by restructuring existing emergency services.

Of course, money is money, and one could just as well use savings from building fewer aircraft carriers or fewer sports stadiums – or asking taxpayers to sacrifice a bit of private consumption – in order to pay for appropriate protection against new threats to safety. But there is one clear advantage in using terrorism as the incentive to deliver traditional services at lower cost. Many of the personnel and some of the equipment now (wastefully) devoted to police, fire and ambulance service could be redirected to security uses with minimal dislocation. Indeed, this is an ideal opportunity for government agencies to shed obligations without confronting the problem of laying off government workers. Even in the case of emergency services, Adam Smith's invisible hand can come to the rescue. **M**