

Handbook on the Economics of Crime

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15 Private policing: experiences, evaluation and future direction

Erwin A. Blackstone and Simon Hakim

INTRODUCTION

The rising number and severity of terrorist incidents and natural disasters in the world, the shrinking government budgets for law enforcement, the trend towards reliance on markets and private provision of government services, the rising number of 911 calls, the regulations requiring additional security, increased exposure to legal liability and concerns about poor publicity have all led to increased demand for private security. The conventional wisdom has been that security is a public good and should be provided by public law enforcement agencies. The question is whether the rising demand and shrinking supply of public policing requires greater reliance on private security and whether it should be regulated. This chapter describes the activities and changes over time in private policing, evaluates its performance, and suggests public policy recommendations. It investigates whether private police are a substitute or complement to public police.

Private police includes companies involved in investigations, guarding, armored car services and security alarm systems. We shall concentrate just on investigation, guarding and response to alarms, which are akin to public policing. The data analyzed include just employees and financial data of companies providing security services. Non-security companies that employ their own proprietary security services are excluded from the data but are a significant part of the industry. It is estimated that there are three private security guards to every public police officer (Joh, 2004) while government data on the industry report only about 25 percent more private officers. Moreover, companies providing security services themselves constitute a large industry. Specifically, employment in private security firms is now slightly larger than that of the motor vehicle production industry, and more than six times as large as the steel industry.

The largest part of the industry (75 percent) comprises guards or patrol officers. With the rising employment of technology, security blends into the IT department, especially in the proprietary context. It is also important to note that in both segments of the industry some security employees spend part of their time in such non-security-related tasks as concierge-type activities.

GOALS AND OBJECTIVES OF PRIVATE POLICE

Private police are responsible to their clients. Public police are responsible to courts, legislators and governmental executives (Joh, 2004, p. 57). Public police are judged on the basis of crime statistics, crimes cleared and arrests. Indeed, public police have incentives to encourage the criminalization of many victimless activities like gambling and

prostitution. This results in more crimes and allows easy arrests for those minor infractions, thus justifying police resources (Benson, 1990, p. 136). In any event, public police largely react to crime and are more concerned with deterrence through punishment and reducing the pool of criminals (see Benson, Chapter 8 in this volume).

Private police are oriented toward preventing and deterring crime. For example, private security is concerned with a client's desire for a pleasant shopping experience or a secure chemical facility. Their focus is on preventing or reducing losses and, accordingly, they are more concerned with monitoring, surveillance and prevention than with arrest and punishment (Joh, 2004, p. 62). Our interviews also stressed this focus on prevention. Specifically, if private security arrests someone, usually in the form of a citizen's arrest, the officer must appear in court, which is costly for and usually does not benefit the client. Indeed, one private security executive stated that where violence is possible, such as in workplace terminations, his security firm would employ an off-duty police officer. Further, if a crime occurs, insurance expense and liability exposure may both be increased, and undesirable publicity could occur. Executives of a major security firm stated that the job of private security is to harden the target, even if crime is displaced. The emphasis on monitoring and prevention is consistent with the advances private security has made in the application of video surveillance.

TIME SERIES OF PRIVATE AND PUBLIC SECURITY

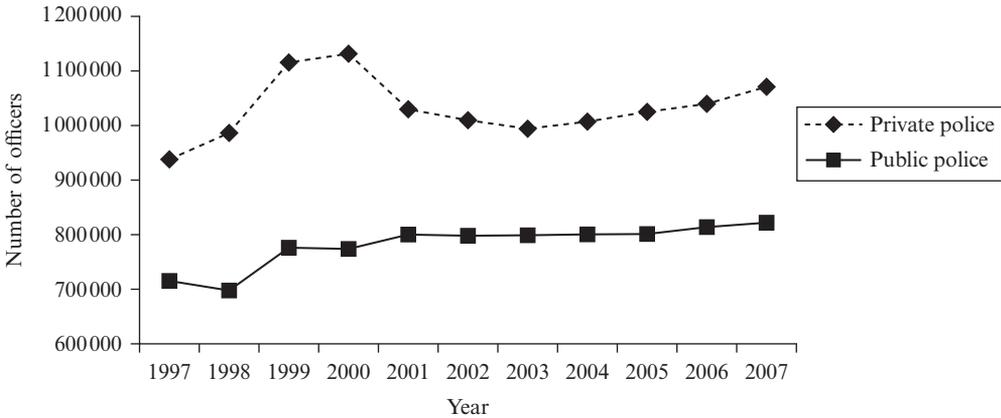
In this section we describe and analyze the trend over time in private and public employment and spending mainly for the period 1996 through 2007. Data are available for police, state and municipal expenditures, and for private security firms.

The number of private security personnel increased from about 940 000 in 1997 to 1.07 million in 2007 (Figure 15.1). The average increase was about 1.5 percent a year compared with about a 1 percent increase in annual total employment, reflecting the fact that private security has been rapidly growing. Public police numbers rose from 1998 to 2001 and otherwise remained constant during the rest of the period.

Figure 15.2 reflects the inverse trend between the number of private and public police. Figure 15.3 shows that the number of private security officers employed and GDP move in the same direction, while the public police trend differs. Employment of public police – unlike private police – is unrelated to short-term fluctuations in GDP. Figure 15.4 strengthens the finding that in the boom years of 1998 through 2001, the number of private police (standardized by total employment) grew more rapidly than total employment or GDP while remaining constant thereafter when total employment or its GDP equivalent was still growing. Figure 15.5 indicates that the share of public police expenditures of total state and local expenditures decreased a moderate 5 percent over the period 1996 through 2005, while GDP showed a steady incline.

The above figures and our interviews with private security executives and consultants provide reasons for change over time in private security. The main reasons are change in GDP, increased liability for property owners and businesses, regulation, and concern about negative publicity. In particular, increased liability exposure has occurred under either premises liability or negligent security claims.

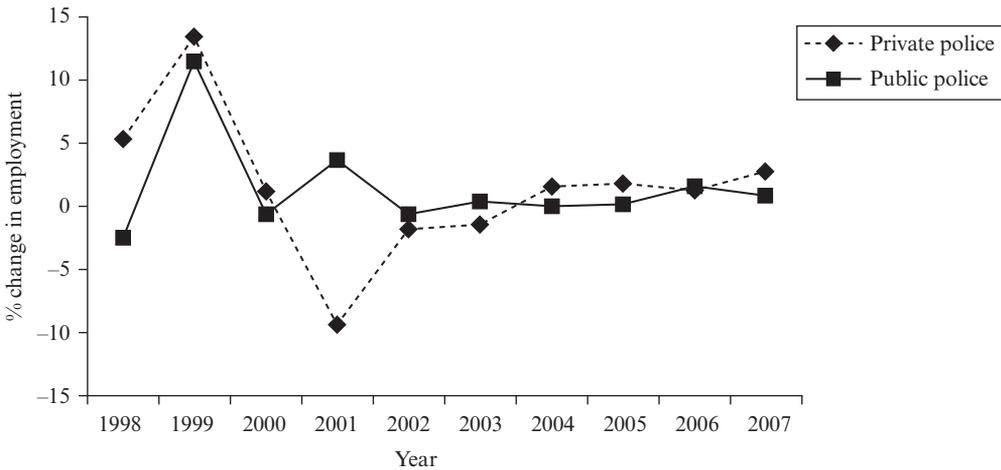
We witness the fact that private security moves with GDP and total employment.



Notes: Public police = first line supervisors/managers of police and detectives + detectives and criminal investigators + police and sheriff's patrol officers. Private police = private detectives and investigators + security guards.

Source: Protective Service Occupations, BLS Annual National Occupational Employment and Wage Estimates for 1997 through 2007.

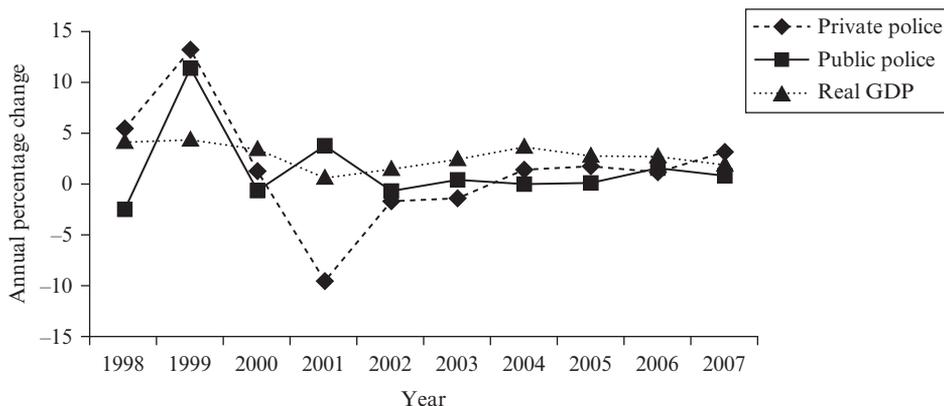
Figure 15.1 Number of state and local police officers and private security officers



Source: BLS National Occupational Employment and Wage Estimates for 1997 through 2007.

Figure 15.2 Annual percentage change in public police officers and private security officers

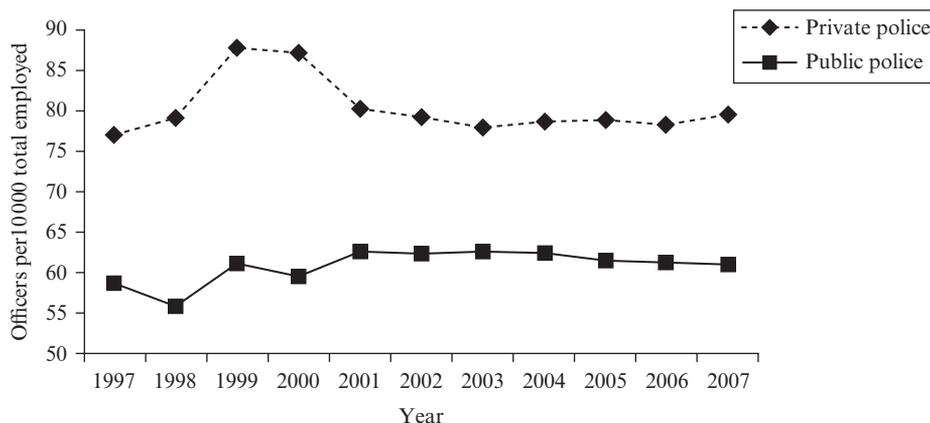
Changes in GDP seem more moderate than those of private security attributable to the much larger GDP base. When standardized by total employment, private security acts as a luxury good, growing faster than total employment and GDP until 2001, but thereafter growing at the same rate. Public police employment does not seem to be related to



Notes: See Figure 15.1.

Source: See Figure 15.1.

Figure 15.3 Annual percentage change in the number of public and private police versus real GDP



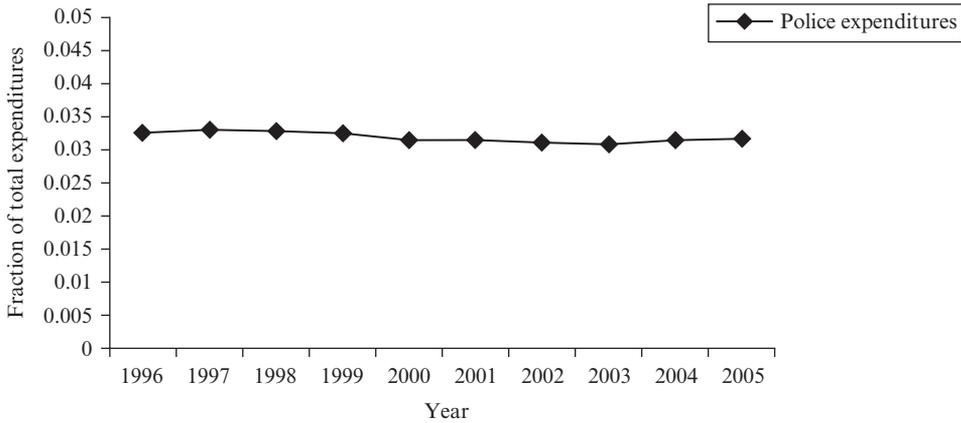
Notes: See Figure 15.1.

Source: See Figure 15.1.

Figure 15.4 Public police officers and private security officers per 10000 total employed

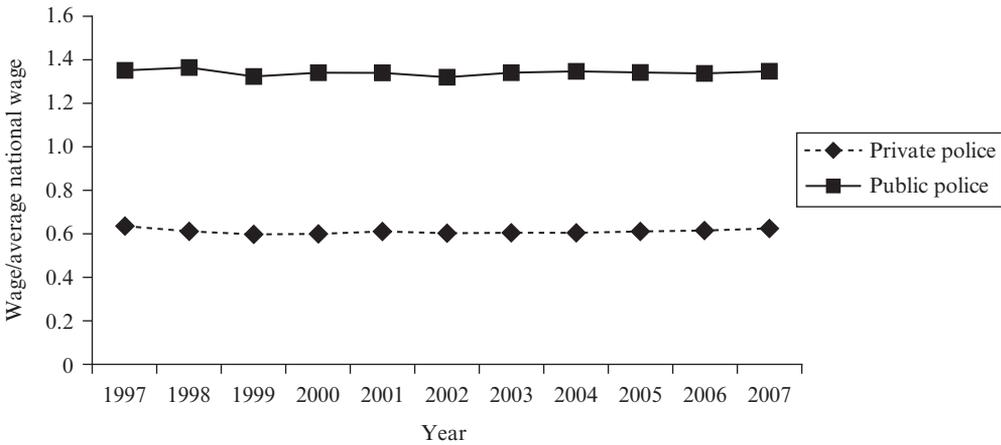
GDP, but rather appears to be a constant 3.4 percent of total state and local government spending.

Often when demand for services of a specific industry rises, it is associated with an increase of its number of employees and their respective wages. Between 1997 and 2007, private guards increased by 14 percent and public police increased by 15 percent, while the total number of employees increased by 10 percent. Wages of private guards are consistently 47 percent of public police wages, and have remained constant with respect



Source: US Bureau of Census Annual Survey of State and Local Finance.

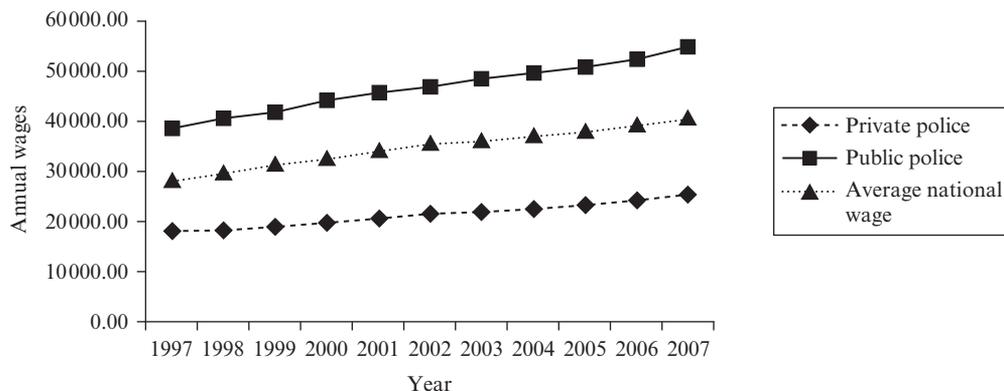
Figure 15.5 State and local police expenditures divided by total state and local expenditures



Source: BLS National Occupational Employment and Wage Estimates for 1997 through 2007.

Figure 15.6 State and local police officers and private security officers: wages/national wages

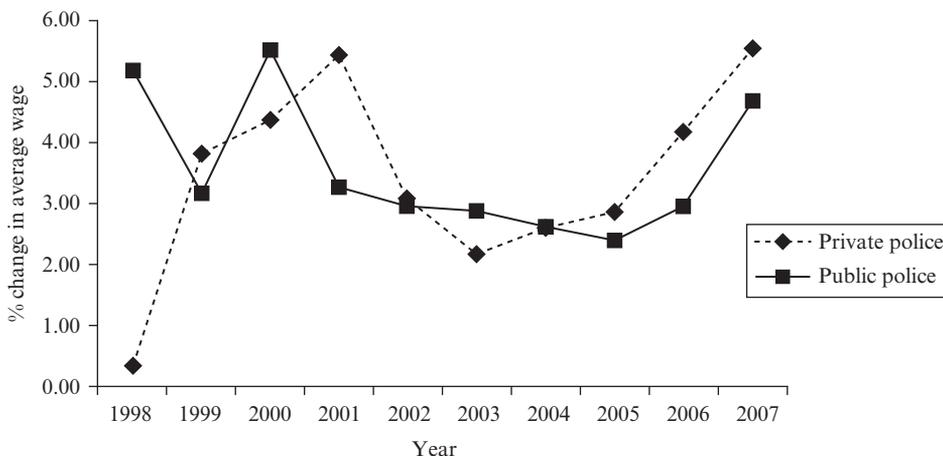
to the general population wages, as shown in Figure 15.6. Figures 15.7 and 15.8 show that wages of private security guards rose 40 percent between 1997 and 2007 while public police wages increased by 42 percent, and the average wage for the USA grew by 43 percent. The relatively small increase in private security guard wages occurred even though demand increased and their numbers grew substantially throughout the period. This is because the private security industry still draws mainly from the large pool of unskilled workers. Figure 15.9 illustrates that, in the aggregate, both private and public



Notes: See Figure 15.1.

Source: See Figure 15.1.

Figure 15.7 Annual average wages of public, private and overall employees



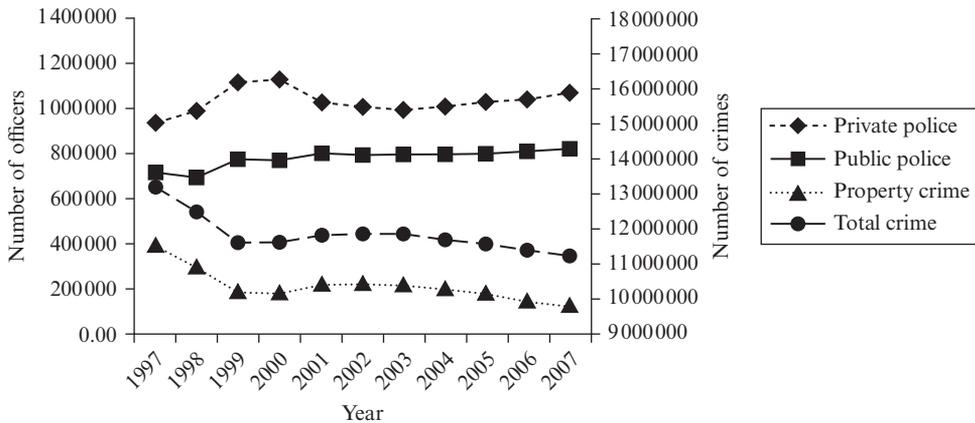
Notes: See Figure 15.1.

Source: See Figure 15.1.

Figure 15.8 Annual percentage change in wages of public police and private security officers

police employment are unrelated to property or violent crime in either the same year or with any apparent lagged response.

In Figure 15.1 we saw that employment in the security industry increased 15 percent in 11 years. Our interviews indicate that, because of regulation, universities and hospitals are the major institutions responsible for increased demand for private security. The USA has over 3000 colleges and universities and over 5000 hospitals. The Clery Act of



Notes: See Figure 15.1.

Source: See Figure 15.1.

Figure 15.9 Number of public and private police officers versus total crime and property crime

1990 mandated that colleges and universities publish their crime statistics in order to be eligible for federal aid. The information now permits parents and students to compare crime exposure of institutions and encourages colleges and universities to enhance security. The 2007 Virginia Tech massacre, in which a student killed 32 students and faculty, led to further substantial increases in security.

Many institutions have established departments of sworn officers and increasingly supplement them with contracted guards. Specifically, by 2009, 25 percent of US universities had their own sworn officer police departments. Sworn officers have advantages, especially when the officers are armed. The mandated training required for sworn officer status provides some reduced liability exposure in cases of weapons incidents and arrests. As long as the officer acts reasonably, his arrests enjoy some liability protection. Further, sworn university officers can make arrests without waiting for the public police. Such sworn officers can also do complicated investigations, requiring specialized knowledge of university-type issues. Note that an expert stated that a sworn officer, unlike a private citizen, does not have to take evasive action or retreat before using deadly force. Finally, a sworn officer may disobey traffic laws and stop traffic when necessary. In Pennsylvania, any non-profit can form its own sworn officer department.

Private security firms are still prominent in universities. A leading security firm, Securitas, guards buildings in conjunction with Georgetown University's sworn officers' department. A similar situation of sworn officers and contract security exists at Temple University. Allied-Barton provides security services at 90 US colleges and universities (Colavecchio-Van Sickler, 2007). This is part of the general trend that started in the 1990s, where profit and non-for-profit organizations contract out non-core activities in order to save on resources, eliminate labor disputes, and enjoy on occasion greater use of technology of the contracted companies.

The Joint Commission on the Accreditation of Healthcare Organizations has promulgated performance rules for hospital security, which includes trauma centers and emergency rooms. Interviews reveal that possible violence by gang members in emergency rooms or trauma centers are major concerns, requiring substantial security precautions. Other significant concerns that led to hiring private guards are theft of babies from hospital nurseries, incidents of violence in parking lots, and stealing of hospital drugs from pharmacies. Hospitals have special security obligations to their patients, who are often especially vulnerable. Some hospitals in Boston and Southfield, Michigan have even established unarmed and armed sworn officer departments, respectively, that have greater arrest authority and liability protection.

There are 104 nuclear reactors and 15000 major chemical plants in the USA. After 9/11, new standards were adopted to protect these facilities from a terrorist attack. Nuclear facilities have to be able to repel an attack by a small group of well-armed attackers. Wackenhut Corporation protects about 30 such US facilities. The US Department of Homeland Security categorized chemical plants into four tiers according to their exposure to security risks. Chemical plants since 9/11 have gone beyond government requirements and have increased monitoring and use of private guards (RedOrbit, 2005). Private guards are used to identify visitors, patrol, and electronically monitor the premises. Nuclear facilities, which require highly trained guards capable of using powerful weaponry, generally employ the large contractors.

Looking forward, these four industries in declining magnitude will become even more important markets for private security companies. Enhanced security regulation and the inability and inappropriateness for public police to secure non-public facilities create demand for the private security industry. The objective of security in universities and hospitals is protection against crime and service provision. The major objective in the case of nuclear and chemical facilities is homeland security, which requires high skill levels and substantial employment of technology.

Private security employment has not been associated with either violent or property crime levels or annual changes in crime. Since the objective of private police is to serve their clients by target hardening and not by arresting criminals, fluctuations in crime should not affect industry employment substantially. Private police are now taking a broader view of risk management: they are integrating IT and overall corporate security rather than simply providing guards. Public police who are responsible for dealing with crime hire private security generally for ancillary services like guarding or transporting prisoners.

STRUCTURE OF THE PRIVATE SECURITY INDUSTRY

The structure of the security industry can help explain its behavior and performance, including the extent of managerial and technological innovations it delivers and the pricing of its services. The most recent data (as of 2002, supplemented by data from 2003) show that there were 23068 establishments in the investigation and security services industry (NAICS 5616). These establishments had \$31 billion in sales excluding almost 10000 establishments that provide security systems or locksmith services. In this chapter, we focus on investigation and guarding services of 12000 establishments with

\$17 billion in sales. Payroll comprises 70 percent of sales, suggesting a highly labor-intensive industry.

The part of the industry of investigation services (NAICS 561611) is unconcentrated; the top four firms had only 16 percent of the industry sales and the top eight had about 20 percent. In security guards and patrol services (NAICS 561612), the top four had 33 percent and the eight largest companies had 40 percent. Since many companies operate only locally, regional concentration is higher.

Concentration is increasing somewhat. Between 1997 and 2002, there was a modest increase in concentration. In 1997 the four-firm concentration ratio for security guards and patrol services was 28 percent and the eight-firm concentration ratio was 36 percent.

A more detailed study by the Congressional Research Service (Parfomak, 2004) indicates that in 2003 the four largest firms had 50 percent of contract guard industry revenues and the top ten had 67 percent. The largest firms are Securitas (24 percent), Wackenhut of G4S (14 percent), Allied-Barton (8 percent) and Akal Security (5 percent). Revenues of Wackenhut and Akal include operations in Canada and Mexico. The other 33 percent comprised thousands of small regional and local companies. Incidentally, Akal started as a small local guard company in 1980 and has become one of the top four in the industry. The firm provides guards to federal courts and access control services at eight US army bases.

The rise of Akal in so short a time shows the high degree of competitive behavior in the industry. Factors such as easy entry help explain the competitive behavior. Since labor (and in particular unskilled labor) comprises 70 percent of total cost, few barriers to entry exist. Regulatory requirements for training are modest and pose no barrier. There is substantial entry and exit in the industry. For example, almost 20 percent of the establishments in the industry did not operate for the entire year in 1997. Further, proprietary operation of security is an option. Prices have to be reasonable to prevent non-security companies from creating their own security forces. Also contributing to competitive behavior is the individual negotiation and tailoring of services to the desires of the client. The service is not standardized.

For an industry where labor comprises 70 percent of total cost, concentration seems fairly high. The reasons for the somewhat concentrated market are the greater demand by federal, state and local governments for private security following the privatization era of President Reagan in the USA and Prime Minister Thatcher of the UK. Protecting large facilities like nuclear reactors and military bases, with the need for more professional officers and greater reliance on technology generally, favored large companies. This led to the rise of companies like Akal that were able to adjust to the new market needs. These innovating companies were also able to capture new service areas in both the public and private markets. This segmentation of producers led to differentiation in wages between the large and the small companies. Competition in the entire market nevertheless remains high.

Introduction of technology such as GPS, video monitoring, photo recognition, widespread cellular telephones, electronic mapping (GIS) and digital communications provided some economies of scale that contributed to mergers and acquisitions in the industry. Our interviews with security executives revealed that technology is playing some role in explaining the modest growth of concentration. The major factors are professionalism and the ability to serve large clients with special needs.

Mergers, including some by large foreign security firms, have contributed to the modest rise in concentration. Securitas of Sweden acquired the US companies Pinkerton (in 1999) and Burns (in 2000), and other smaller guard firms as well. Allied and Barton, two US companies, merged in 2004, and Wackenhut was acquired in 2004 by the UK-based G4S. Foreign acquisition of US corporations is explained by economies of scale and the low value of the dollar. Also, since many US companies operate worldwide, there is an advantage for security companies to be able to offer security services wherever such companies operate. Our interviews with security executives suggest a fourth reason, purchasing power enjoyed by larger companies. It is perhaps noteworthy that the foreign-owned Wackenhut guards highly security-sensitive facilities, such as 30 of the nation's 103 nuclear power plants and seven US Department of Energy facilities. If the US government, which is a significant buyer of private security services (about 10 percent) chose not to use foreign-owned companies, then the trend of foreign ownership would be less common.

The fact that the industry is moving towards a somewhat more concentrated market probably means that the large firms already differentiate themselves from the smaller highly competitive firms by improving their quality through greater use of technology and more highly screened and trained officers. In spite of the higher concentration, the industry remains competitive. The Producer Price Index that measures the sale prices of its services increased between December 2004 and December 2008 by only 5.2 percent compared to 18.5 percent for the overall index. This suggests that all producers have raised their prices by almost four times more than security producers did, indicating the highly competitive nature of the private security industry (Economic Report of the President, 2006, 2009; BLS, 2008). Again, since labor comprises 70 percent of total cost in the private security industry, the increase in wages over the same period was 13.1 percent, suggesting that overall labor costs increased at least 9.2 percent. The result was a squeezing of profits, providing additional evidence to the competitiveness of the industry. Finally, the Bureau of Labor Statistics reports that companies frequently lose contracts, which provides further confirmation of the competitiveness of the industry (Page, 2005).

The time-series diagrams showed that the number of employees in the private security industry rose 14 percent between 1997 and 2007 while the total number of employees in the USA grew only 10 percent. Wages in the private security industry rose 40 percent while in the USA overall they grew 43 percent. Our interviews reported (e.g. Hallcrest Security, 2009) that the private police industry has adopted technology at a higher rate than public police. Real industry prices diminished 13.3 percent between December 2004 and December 2008. This all leads to the conclusion that the private security industry is very competitive, earning normal profit, and that the return for the introduction of technology is absorbed in lower industry prices.

SHIFT FROM PUBLIC TO PRIVATE SECURITY

The demand for public police services has significantly increased because of the large number of 911 calls and the added responsibilities arising from the threat of terrorism, including establishing special intelligence units and guarding infrastructure during terrorism alerts. New York City, for example, has created a unit of approximately 200 officers, including some stationed overseas. Long Beach, California police have created

a terrorism and special port unit which forced the department of 1000 officers to reduce foot patrols and narcotics enforcement (Blackstone et al., 2007, p. 316). Since police budgets are not responsive to the added services, demand for private security rises and some services shift from public to private police.

The shift from public to private security has four sources: shedding of services that are non-public in nature, contracting out of public services aimed at saving resources, shedding aimed at modifying private sector behavior, and supplementing the public police because of perceived insufficient supply.

Shedding Non-Public Services

Police have historically performed some services that are private in nature and the tendency now, when the demand for police has risen, is to shed them. The process of privatization of state and local services that started in the 1980s led many communities to shed non-public goods services, such as response to burglar alarms, escorting funerals, investigating bad checks, investigating minor traffic accidents, animal control, and unlocking vehicles. The common denominator of these services is that the benefits accrue to individuals, they can be priced, and they have no or insignificant external effects. Once police shed the service, private entities usually enter the void.

Perhaps the best example for shedding private service and examining the impact is that of response to burglar alarms. Ten to 20 percent of police responses are to burglar alarms of which 94–99 percent are false (Blackstone et al., 2001; Blackstone et al., 2007). Police response to false calls diverts resources from public service to the individual/business that falsely activated the system. The community does not derive any benefits when the officer rushes to the site and inspects it for possible burglary. Police response to a false activation is a private good. However, if an alarm occurs for a real burglary, the officer who rushes to the scene performs a public service of deterring crime and possibly apprehending the criminal. Apprehension of the criminal reduces the exposure of the public to crime and provides deterrence and punishment for violating society's values. However, given the high probability of false activations, police respond at a low priority to alarm activations, significantly diminishing the effectiveness of alarms while still maintaining the high cost of response (\$80–\$120).

Response to alarms involves two exclusive and independent public and private goods. Response to real activations is a public good ($Pr = 0.01–0.06$) and to false activations a private good ($Pr = 0.94–0.99$). The solution suggested is for police to shed this service, enabling private response companies to operate in a labor-intensive highly competitive market. If the private officer observes signs of an actual burglary, the police are called and respond at a high priority. This method, termed Verified Response (VR), is a public–private partnership that has been applied in Salt Lake City, Las Vegas and over 30 other communities.

The chiefs of police in some communities have diminished significantly the priority of response to alarms. This has been a *de facto* implementation of VR. It is difficult politically to officially implement VR by changing the local ordinance for burglar alarms. Such a process faces significant opposition from the burglar alarm industry, including pressures on the members of city councils. The police chief in Salt Lake City requested, and the city council implemented, the change in the local ordinance for burglar alarms in spite

of stiff opposition from the local and national burglar alarm associations. After VR was implemented in 2000, Salt Lake City police responses decreased from 9439 in 2000 to 898 in 2001. 'Valid' alarms decreased from 64 to 5, and the saving in officers' time was 8482 hours per year, or \$508 920. There was no increase in burglaries after VR was announced publicly, while police were able to reduce response time from five to three minutes to other high-priority calls. Further, as a result of prompt initial response by private security and following high-priority police response, police apprehended six burglars out of only 720 police responses in the first nine months of the new ordinance compared with five apprehensions out of 10 200 police responses in 1999 (Blackstone et al., 2001). The reasons are clearly the lower pressure on patrol officer time, the higher priority of response, and the knowledge of the responding officers that they are going to face burglars rather than experiencing another false activation. Nationally, elimination of police false alarm response by implementing VR could annually save \$1.8 billion or the equivalent of 35 000 officers (Blackstone et al., 2007). This would allow diverting police officers from providing a non-public service that yields no social welfare but imposes significant opportunity cost.

Contracting Out Public Services

Often police contract out public services to improve efficiency. In such cases, police keep the overall control on the quantity and quality of service while competition prevails at the bidding stage. The reasons for this growing trend of contracting out are:

1. Police budgets are constrained by the total governmental budget and tax receipts. With rising demands for more services, local governments have to turn to the competitive private sector in order to reduce costs.
2. Many public services of police do not require expensive sworn officers. For example, the wages of sworn officers are 2.15 times those of private security performing the same service of responding to false burglar activations.
3. Demand for police services often experiences fluctuations that cannot be satisfied with existing police manpower, but does not warrant an increase in their size. Private providers could fulfill the need at periods of temporary excess demand (Blackstone et al., 2007).

Contracting out services that do not require sworn officers can be illustrated by the following examples: the Southfield, Michigan chief of police in 2008 contracted Wackenhut to operate the lock-up facilities where prisoners are kept for the first two days before transport to the jail. The cost to the police department was half what the sheriff's department charged and the savings were \$700 000 annually (interview with Chief Thomas, 22 January 2009). The savings are a rough equivalent of adding more than ten police officers to the department. In addition to savings in salaries, contracting out satisfies excess peak-time demand for police. Hiring sworn officers to satisfy sporadic needs that can be provided by less skilled personnel is more expensive and could lead to excess capacity at other times. Lakewood CO uses private armed security to transport and guard prisoners in the hospital. It also uses private security to guard crime scenes. The direct savings are \$10 an hour (Security Solutions, undated). Further, as mentioned, the federal government has been a large contractor of private security, which has been protecting federal

installations including military bases, the federal Reserve banks, and quasi-federal facilities like defense contractors, and nuclear facilities.

Modifying Public Behavior

Police shed certain services in order to modify behavior to encourage firms and individuals to take appropriate precautions. For example, police generally place a low priority on responding to complaints of customers driving off without paying for gasoline. Gasoline service stations will then alter their pumps to require payment before filling the tank. Police do not investigate, and US attorneys will generally not prosecute, identity theft cases of less than \$100,000 (Goldstein, 2007). This encourages individuals to become more careful to avoid disclosure of their identity and banks to hire private investigators to pursue the cases, seek the arrest of the criminals, and recover the losses. Police generally do not respond to restaurant calls about customers who fled without paying their bills. Restaurant managers then require their waiters to watch their customers and be responsible for the lost receipts. This encourages restaurants to also employ surveillance cameras. Police increasingly withdraw their service from minor crimes, leading to adaptive behavior of their constituents.

Supplementing Public Police

Supplementing public police occurs when constituents are not satisfied with the existing level of security. The following examples illustrate this category. Chicago residents voted for a referendum to establish a special district which City Council approved and to levy additional real estate taxes to fund private police (Pastor, 2003, p. 105). Upon approval by the residents, the City Council appointed an administrator for the district who put out a bid to security companies and hired two companies to augment regular police in the district. The private officers were armed, wore uniforms similar to police, and performed similar activities to the police. The private officers spent 51 percent of their time on order maintenance, 32 percent of their time providing traditional private security tasks of observe and report, and 17 percent on serious crime related activities. The private companies did everything that the public police did, including arresting criminals confronting criminals and assisting the police. The private officers responded to burglar alarm activations under the contracting-out arrangement (Pastor, 2003, pp. 101–63). We suggested earlier that response to alarms is a private service and it is more socially efficient to shed the service than to contract it out.

In Philadelphia, center city businesses requested, and the City Council approved in 1991, a 5 percent surtax on their property taxes to fund the special district, one-third of which funded a private security force. These security guards assist people, deter crime and report incidents to the police. They share facilities with the Philadelphia police officers who are assigned to the center city. Crime decreased by 6 percent from 1993 to 1994, while in the entire central police district crime increased by 1 percent. In a population survey, 78 percent believed that the center city district was safer than or at least as safe as before private security operated (Pastor, 2003, pp. 95–6).

Wealthy neighborhoods and wealthy gated communities often desire more security than the municipal police provide. In the Atlanta area, many neighborhoods hire private patrols. The typical model involves the neighborhood forming a corporation to employ

a security patrol within its boundaries and then selling membership to community residents. The patrol checks the members' premises while skipping non-members. Members are identified by a special sign. However, in case of criminal activity the patrol intervenes regardless of the household's membership (Bennett, 2007).

LEGAL AND REGULATORY ISSUES

Private security is the agent of the premises owner and its power is derived from the inherent authority of the owner. Police are the agent of the government and are charged with enforcing the public law. Another important distinguishing feature is that public police have to comply fully with constitutional prohibition against illegal search and seizure, while private security is not similarly bound. When private security cooperates with the police, it may be subject to the constitutional restrictions applicable to the public police. Private security that utilizes the power of 'citizens' arrest' incurs substantial liability exposure for possible mistakes.

Legal and regulatory rules have substantially contributed to the expansion of private security. Judicial decisions have expanded the liability of property owners through 'premises liability' and 'negligent security' doctrines. The courts have even expanded the perimeter around which property owners are responsible (Pastor, 2003, p. 60). The events of 9/11 raised additional concerns about security and the responsibility and the standards of care that businesses must exercise to protect their employees and visitors. In addition, the issue of foreseeability has become more stringently employed by the courts. Illustrative of this point is the case of a random fatal stabbing attack in a bus terminal where the Massachusetts Supreme Court ruled that the bus company should have provided a private security guard for deterrence purposes, even though the fatal incident could not have been prevented (Dain and Brennan, 2003, p. 90). Hospitals are required by regulatory rules of their accreditation agency, the Joint Commission on the Accreditation of Healthcare Organizations, to have appropriate security, especially for trauma centers. Similarly, the federal government mandates appropriate security for defense installations, nuclear facilities and other security-sensitive facilities.

Another reason for the expansion of private security is the legal requirement by the federal government for universities to publish statistics related to campus crime. Since universities compete for students, they want to have a low crime image and avoid undesirable publicity. These legal and regulatory changes lead to expansion of both proprietary and contracted security. The substantial verdicts explain the incentive to hire large private security companies to share the liability exposure and provide more resources to defend allegations. This is another reason for the modest increase in concentration in the private security industry.

ADVANTAGES AND DISADVANTAGES OF PRIVATE SECURITY

Private security serves as a substitute to police along two dimensions, shedding and contracting out. Shedding of police could be complete, like stopping initial response to

burglar alarms VR, or partial shedding, when police establish a low priority of response such as investigating bad checks, minor identity theft and retail theft. For example, if police eliminate the provision of false alarm responses, total savings for police will be \$1.8 billion or result in at least \$600 million social net benefits because of the use of lower-cost resources. Contracting out is common for special tasks that can be quantified in a contract as the performance is easily monitored. Examples include Wackenhut's contracts to transport Border Patrol detainees and its operation of the 72-hour lockup in Southfield, Michigan. Up to now, contracting out of even an entire small police department to a private entity has essentially not occurred (Pastor, 2003, p. 90). It is, after all, difficult to specify and monitor by a contract performance for much of policing, so contracting out an entire department is unlikely.

There are tangible benefits from the competition between the public and private sectors. Public police are a bureaucratic monopoly; not surprisingly, their wages are higher than their close substitute of private security. This has induced some police chiefs to contract out some ancillary police services. The threat of additional substitution helps constrain public police wages. Further, competition among security firms induces them to introduce technology more rapidly than the public police. Police learn of private security technology initiatives and adopt them. The flow of technology adoption is greater from private to public than in the other direction.

Private security originally developed community policing where the officers work with the client (community) to solve specific problems. Private security philosophy and practice have been proactive rather than reactive, like the public police used to be (see Benson, Chapter 8 in this volume). Since private security wants to deter and prevent crime, they work with clients to do so. It is noteworthy that community policing has now become a general practice of public police (Pastor, 2003, p. 58).

Private security has adopted the public police patrol practice, where each patrol officer is assigned a specific territory (interview with Securitas, 6 January 2009). Not surprisingly, public police practices spill over to private security. Many private security executives and officers are drawn from public police. Many security officers are trained at police academies, and police officers are employed as private security guards during non-public employment. Society derives important benefits from having both public and private police.

Most private police operations are complementary to public police. Private police are more 'eyes and ears on the street'. The Center City Business District in Philadelphia incorporates guards who patrol the district in greater numbers than the public police to deter crime and request police assistance when necessary. In another city, police broadcast an alert of a fleeing suspect who was spotted and apprehended by a private security officer (Goldstein, 2007, p. A04).

Private security's most important advantage is its lower cost for similar-quality service. For example, private response to false alarms is of the same quality as a sworn officer's response. These savings emanate from elimination of non-public goods, contracting out non-sworn officers' services, and accommodating variability of both demand from and supply of police officers. The former includes annual police resource savings of \$2.8 billion from just shedding non-public-good services or social net benefits of \$935 million (Blackstone et al., 2007). Police often face a temporary shortage of officers as a result of vacations, illness, court appearances, and guarding prisoners in hospitals. Police often

experience temporary increased demand because of such special events as natural disasters and dignitary visits. It is also difficult to terminate officers once they are employed, while private security could be hired for even a few hours. Several of the private security executives have emphasized their companies' role in satisfying peak demand (e.g. Wackenhut).

Public police provide a standard service level of sworn officers, while demand for security is not uniform; demand is for various levels of officer expertise. Demand may require lower or higher professional knowledge. Directing traffic does not require sworn officers, while responding to a domestic dispute may require an officer with training in psychology. Wackenhut hires former FBI agents, retired police officers and former military police officers to satisfy different demands for quality. The latter two categories (retired police officers and former military police) form what Wackenhut terms Custom Protection Officers (CPOs). They provide a similar quality level to sworn officers but are paid \$25–\$28 000 while public police are paid \$38–\$40 000. CPOs have provided service for transit agencies. A Hallcrest executive stated that police normally do not hire accountants, lawyers and IT experts, which the private security industry provides when necessary.

Many argue against using private security guards since in general their level of education and training is below that of sworn officers. However, private security guards are being used for tasks that do not require the better-educated, trained and paid sworn officers. When dealing with regular patrol and stationary guards, the deterring and preventive activities that private security is engaged with require less training. For highly sophisticated security obligations like computer forensics, identity thefts, or nuclear (e.g. Wackenhut) and defense contractor security (e.g. Securitas), the industry uses highly trained personnel. Market demand and requirements dictate the use of appropriate inputs.

Police as a bureaucratic monopoly do not tailor service to various 'customers' as market suppliers do. Lack of market pressure on public officers does not force them to satisfy particular needs of the court, the legislatures and the constituents. However, private police have to satisfy customers' needs in order to survive and grow in the highly competitive market. An example from response to false burglar alarms illustrates the tailoring of services. When Toronto's police raised fines for all false alarm response to \$75, some alarm companies almost immediately established private response service. The competition that resulted led to price differentiated packages to subscribers.

The highly competitive nature of the private security industry requires firms to save resources and improve quality of service. Joh (2004) and executives of Hallcrest Security and Day and Zimmermann Security Services stress the sophisticated technology used in the industry. It includes monitoring, access control, surveillance technology, IT-addressable video and video analytics. Parameters can be set when an anomaly is occurring, for example a vehicle stopping for more than two minutes, a person in a doorway, more than two people congregating, or a package left in a certain location. Further, one person can now monitor 200 cameras using smart video. Public police have been relatively slow in adopting new technology. For example, in 2007, Bellwood, Illinois pioneered the introduction of extensive video technology while the private police of the University of Pennsylvania already had it prior to 1997. Further, Temple University in Philadelphia in 2009 was using 632 surveillance cameras, which was more than those used by the City of Philadelphia.

Public police and private security are substitute goods and demand elasticity probably rises with increasing taxes (Benson, 1990, p. 262). When police in their labor negotiations demand significant salary increases that would cause a substantial increase in taxes, the government entity could threaten to incorporate more private security either through shedding or contracting out certain services. This could moderate the police demands for increases in salary.

Some arguments are raised about the social disadvantages of private security. Private patrol is evident mainly in wealthy neighborhoods, gated communities, and special central business districts. Indeed, the wealthy may perceive demand for security as a normal and even as a luxury good. They perceive standard public police service as inadequate, especially for personal security. Thus it seems that the rich enjoy greater security than the poor. However, since public and private security is highly substitutable, private security in wealthy neighborhoods relieves officers who could be placed in other neighborhoods in the jurisdiction. Nevertheless, the greater security of wealthy neighborhoods is hypothesized to displace crime to other neighborhoods. This hypothesis has not been supported empirically.

Private security on occasion has been accused of harassing citizens. For example, in a Boston housing project patrolled by private security officers with police powers, residents have accused the officers of abusing them (Cramer, 2008). However, public police officers have also been accused of using excessive force and abusing people, and some have even been convicted by the courts. Public police have greater authority and consequent ability to use arbitrary and excessive power than private police, and the latter can be both sued more easily and have their employment terminated.

Unlike public police officers, private police officers are not bound by the constitutional protections and, accordingly, can interrogate and arrest without warning citizens of their legal rights. However, private police can be sued for inappropriate conduct. When public and private police cooperate so that the private police are in effect agents of the state, they then have to adhere to the normal rules of evidence and constitutional prohibitions (Joh, 2004; Pastor, 2003, pp. 72–4). The legal situation may jeopardize personal rights; however, regular market forces and the threat of litigation will diminish such excesses.

CONCLUSIONS AND FUTURE DIRECTIONS

The objective of private police is to satisfy the client through deterring or preventing crime from the targeted location even if displacement occurs. Public police focus on arresting and thereby reducing the pool of criminals. Changes in crime do not explain the growth of either private or public police. Private police annual growth is 50 percent higher than total employment, while public police growth remains constant over time. Private police growth is explained mainly by GDP, increased liability exposure, regulation mandating security requirements, and desire to avoid negative publicity. As part of the general trend of privatization, police have been shedding non-public services like response to false burglar alarms and contracting out such public services as transporting prisoners that could be produced more cheaply by private firms.

Another important factor explaining the growth of the industry stems from its highly competitive nature, which requires firms to exploit quickly and effectively new niche

markets. Specifically, companies have increasingly provided security for critical infrastructures, hospitals, universities, business districts, gated communities and, recently, computer fraud, identity theft and other white-collar-crimes. Public police as a bureaucratic monopoly provide standardized sworn officer service. Private police operate in a monopolistically competitive market and, as such, seek new profit opportunities by providing the different quality and variety of services buyers want. Private police create a viable substitute to public police in the eyes of public officials, requiring the police to become more efficient and restrain their growth. Private security has reduced the bureaucratic monopoly of public police and provides significant social net benefit.

Most current activities of private police require low-skilled workers, and thus low wages are earned by guards, consistently just 47 percent of public police salaries. Continued increased demand for public police will add demand for private police. Growth is expected in markets that require officers' skills both below and above those of sworn officers. For example, shopping malls will continue to require low-skilled officers, but investigating identity theft or sophisticated computer fraud requires highly skilled officers. Police departments can offer wages at a standardized range that is below professionals' market salaries. Police are beginning to enter some of the sophisticated areas through training their own officers for the tasks. However, limited training is not a good substitute for the educated and experienced professionals who are used by private police.

The industry will grow to satisfy demand of expanding industries like healthcare, universities, responding to burglar alarms, and homeland security. The healthcare industry, which comprises 16 percent of GDP, will require more guards in emergency rooms, trauma centers, and overall access control. Further, the growing aged population, where many receive home healthcare, requires guards on occasion to accompany the aid workers. The expectation of secured campuses and the high price of proprietary sworn officers will continue to be a source of growth. When one university improves its security, the competition among universities for students forces other universities to also improve theirs. In addition, institutions that are below the new higher security standard risk increased liability exposure for negligent security. This leads to the important conclusion that an increase in quality of private security, whether proprietary or contracted by an industry, will require improved security by all firms to avoid liability exposure. For example, if a significant number of hotel chains improve their security by adding more guards, other hotels have to follow since the standard for the industry considered by insurers and the courts has risen in case of a liability claim. This competition, which raises standards of security, works in the same direction as regulation.

Joint provision of services, including response to burglar alarms, patrol, and provision of vacation services, or being at a retail business at opening and closing, enables profitable delivery that is often absent when each service is separately provided. Our interviews revealed that the number of services provided by private security has increased due to the economies of scope enjoyed by such joint production of security and other services. This is a source of growth for the industry, where the future security companies will diversify and add other non-security services.

Private police have already been mobilized to respond to disasters. In the case of 9/11, a private security company sent its officers from distant localities to New York City to guard buildings. Similar mobilization occurred in the case of hurricanes. This chapter leads to a suggested public-private partnership, which requires further research. Regional homeland

security forces could be established using private sector volunteers for the executive positions and paid private security guards to supplement public police who are in short supply when a disaster occurs. The force could utilize pre-assigned equipment of local businesses. In conjunction with such a force, it is possible to provide regional mobile emergency centers composed of volunteer physicians, nurses and other medical professionals.

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INTERVIEWS

We conducted detailed interviews with top executives of the following security firms and with police personnel between 1 December 2008 and 10 February 2009:

Allied-Barton Security, Day and Zimmermann Security Services, First Response, Hallcrest Security, Longwood Security, Pinkerton-Burns, Securitas, Wackenhut.

Police Chief of Southfield Michigan P.D., Lieutenant of the Boston P.D.

