

**FORTUNES FOR THE BOLD:  
AN ECOLOGICAL PERSPECTIVE ON THE EMERGENCE OF  
PRIVATE MILITARY AND SECURITY COMPANIES**

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**Abstract:**

JOSEPH R. BONGIOVI: Fortunes for the Bold:  
An Ecological Perspective on the Emergence of Private Military and Security Companies  
(Under the direction of Arne Kalleberg)

The past two decades witnessed the emergence of a new population of organizations, private military and security companies. While there is a large volume of literature on the subject, most has focused on its relationship with state agents, governance structures, role definition, public accountability, the relative effectiveness of state and private actors and how they can best work together. While there are studies of individual organizations there has been little analysis of the entire population organizations. This study helps fill that gap in existing literature. It provides insight into organizational population emergence and industry dynamics using a data set of 1,477 private military and security companies. It contributes to organizational science by extending ecological analysis to an important new industry. It considers the role of independent entrepreneurial action in population emergence. Finally, it adds new and detailed information on this population not previously available.

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## CHAPTER 1

### INTRODUCTION

In the summer of 2012 the eyes of the world were focused on events in the United Kingdom, first the Queen's Diamond Jubilee, then the 2012 London Olympics and finally the Paralympics games. The day after the Olympics were awarded in 2005, bombs had ripped through three subway cars and one bus during rush hour, the largest terrorist attack in British history. Only one year before the Olympics took place, London was convulsed with the largest civil disturbance in its history as riots spread uncontrolled for days. As shocking as those events were, another story was unfolding behind the scenes. A 657,000 person £7.8 Billion behemoth, Group 4 Securicor (G4S), was engaged to lead the most complex security operation in the nation's history. In an unprecedented £284 million contract, including a £57 million management fee, G4S was given primary responsibility for securing the games, including providing over 10,000 private security personnel as well as leading police and military at the Olympics venue.<sup>1</sup>

The role of private security was not exclusive to the London Olympics. G4S did £759 million in United Kingdom public business in 2010 and 2011,<sup>2</sup> running prisons, immigration and detention centers, police stations and other security operations, though this large government business did not even represent the majority of its United Kingdom revenue. Additionally, private military and security companies received £62.8 million in British government contracts in Iraq and Afghanistan between 2007 and 2009, including Armor Group, itself subsequently acquired by G4S.<sup>3</sup> As

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<sup>1</sup> House of Commons Home Office Committee. 2012. *Olympics Security*. Page 2

<sup>2</sup> *Ibid*

<sup>3</sup> Huffington Post United Kingdom 2012 "G4S and the Privatization of War," July 17, 2012 (accessed September 21, 2012)



impressive as its size and scope of operations are, G4S is not alone. Over the past two decades a population of these organizations has emerged, leading to the establishment of a new global industry. With activities in war zones, support of relief and development initiatives and securing organizations and individuals these companies play a role of critical importance.

There are aspects of the present global institutional and economic environment that are similar to those of the seventeenth century and there is evidence of organizations evolving in that direction (Tilly 2001). From that perspective, globalization and the prevalence of market transactions provides an advantage to innovative and networked global firms across permeable national boundaries, weakening the authority and sovereignty of the state in the process (Kobrin 1997).<sup>4</sup> Newly emerged private military and security companies demonstrate such characteristics. Furthermore, they not only cross national boundaries, but even move into activities previously considered the exclusive domain of the state. Some of those activities were so closely linked as to even be considered a definition of the state (Tilly 1985; Weber 1958). The establishment and direction of a new industry operating in this domain carries a great deal of relevance for organizations and institutions, perhaps providing insight into important changes in the global environment.

Much has been written about individual private military and security companies. A great deal of the literature discusses their relation to state agents in defense, security and intelligence. Nevertheless, in this paper I argue that our understanding of this industry remains incomplete. While the presence of these firms is becoming taken for granted, there is not yet an understanding of the nature of their emergence. Nor is there a clear explanation for the mechanisms involved in this process. The weight of the literature on private military and security companies covers their early role in Africa and the Balkans through their involvement in Iraq. Nonetheless, there is not a comprehensive analysis of dynamics of this industry over a long time period.

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<sup>4</sup> The institutionalization of these conditions is often referred to as “neo-liberalism” or “neo-liberal globalization”

This study is an effort to fill the gap in understanding of private military and security companies. It seeks to identify founding mechanisms for these companies, as well as define the dynamics of the evolution of this industry. In other words, it focuses on answering the question of how to account for the emergence and development of this industry and what it can contribute to a broader understanding of emergence of new organizational populations.

Previous work on private military and security companies has either used individual case study, political theory, law or public policy to shed light on what is occurring. Without a broader view of the industry, and the population of organizations within it, this has been the best use of evidence available to researchers. One of the drawbacks of this approach is that it results in a perspective limited by individual case studies, studies of dyadic relations with focal organizations such as the United States Military, or the presence or absence of legal or regulatory regimes in a specific location. In this paper I argue that this has left of void in our understanding of these firms, in aggregate, that can only be filled with a study grounded in organizational theory. More specifically, I argue that an organizational ecology perspective is required to analyze the dynamics of this entire population of organizations over a long period of time (Hannan and Freeman 1977; 1986; 1989a; 1989b). It is only in this way that a broader and more complete understanding of its nature and trajectory can be understood.

While a population level analysis seeks to present a broader perspective than previous studies, it does not address the nature of the emergence of this population. In order to do this, I consider the role that independent entrepreneurial action plays in introducing variation into a dynamic environment, and in the process enhancing the likelihood of opportunity identification and organization for exploitation (Alvarez and Barney 2001; 2004; 2005; 2007; Shane 2000; Shane and Venkataraman, 2000). In this study I also consider other ways that these firms could have come into existence, such as through government or parent company action.

“Population ecologists want to understand the dynamics of organizational diversity, *how social changes affect the mix of organizations in society.*” (Hannan and Freeman 1986:52). To do this

in the case of private military and security companies, I compare social, economic and political factors that have occurred concurrently with the emergence of this industry. While preliminary in nature, I seek to show the relationship of these factors over time.

Furthermore, perceptions of legitimacy are theorized to affect the prospects or organizational populations (Aldrich and Fiol 1994; Hannan and Freeman 1977; 1989b; Meyer and Rowan 1977). To evaluate these claims in relation to private military and security companies, I consider the role of institutions in shaping this population and providing opportunities for organizational collective action. This process, in turn can contribute to both “cognitive” legitimacy, or population learning, and “socio political” legitimacy, thus enhancing survival prospects for members of the population and likelihood of retention of this new organizational form in the future (Aldrich and Fiol 1994; Hannan and Freeman 1977; 1986; 1989b).

In the balance of this paper I develop, analyze and address these research questions. I first provide more information and a broader context of the private military and security industry as it has been described to date. After that I expound on theory relevant to the study of organizational founding, emerging populations and how they are shaped. Next I review data, methods and variables used in this study. This includes an explanation of the census of 1,477 such firms which I have collected, what it includes and what it suggests about the industry. In the subsequent section I present the results of this study. Finally, I conclude with a discussion of the implications of this research, as well as topics for future study.

## CHAPTER 2

### PRIVATE MILITARY AND SECURITY COMPANIES

Private military and security companies are legally incorporated for profit<sup>5</sup> organizations, selling their services to a large number of diverse customers (Carmola 2010; Mandel 2002; Ortiz 2010; Singer 2003). Their products and services overlap with governmental security roles, replacing or complementing work done by public servants. They operate in high risk conflict environments, usually in more than one country or region. Their products and services tend to fall into three categories: specialized military or conflict zone logistics and/ or construction; intelligence, consulting and/ or training; and physical operations that often take on a “coercive” nature, such as convoy security, static security or combat activities (Avant 2005; Carmola 2010; Engbrecht 2011; Mandel 2002; Ortiz 2010; Singer 2003).

The private military and security industry comprises a population of thousands of organizations, millions of workers and hundreds of billions of dollars in annual revenue, conducting operations on every continent and nearly all countries (Abrahamsen and Williams 2009; McCoy 2009). A recent French Parliament study defines the total market for military and security services to be at least \$200 Billion annually as of 2011, consistent with previous estimates of market opportunity,

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<sup>5</sup> There are some exceptions to this. Bancroft Global Services, an important contractor in Somalia and central Africa is a non- profit organizations. Others, such as G4S, are publically traded. There are a small number of state owned firms as well. In almost all other cases these are for profit private companies.

and up from \$55.6 Billion in 1990.<sup>6</sup> Another study suggested that the total market would be \$2.7 Trillion between 2010 and 2020.<sup>7</sup>

Firms such as Swedish based Securitas (Securitas) and United Kingdom based Group 4 Securicor (G4S) employ hundreds of thousands of employees on all continents. During the high point of the United States Military surge in Afghanistan, United States Department of Defense contractors exceeded United States service members 113,491 to 90,000 (Norland 2012; U.S. Department of Defense), with 430 contractors (U.S. Department of Labor) and 413 soldiers (U.S. Department of Defense) killed. This pattern had also emerged in the war in Iraq (Fischer Jacquette 2010; ProPublica; Schooner and Swan 2010; Schooner and Swan 2012; U.S. Department of Defense; U.S. Department of Labor).

There is a substantial body of literature on private military and security companies. Organizational founders provided their accounts of starting firms such as Executive Outcomes (EO) (Barlow 2007), Sandline and industry giant Aegis Defense (Spicer 1999) when early operations were occurring primarily in Africa. Other participants told of their service with Ronin Concepts (Geddes 2007) and other firms in Iraq (Ashcroft 2006). Journalistic accounts discussed these same firms (Venter 2007; 2011), as well as others such as Crucible Security (Fainaru 2008; Schumacher 2006) Military Professional Resources, Inc. (MPRI) (Schumacher 2006), Blackwater (Scahill 2007; Simons 2009) and Halliburton (Chatterjee 2009) in the same conflict.

A large number of these books and articles were written as an overview of the industry. Journalistic accounts (Fainaru 2008; Geraghty 2009; Pelton 2006; Schumacher 2006) provided an informative and readable orientation. Academic studies have been primarily written from the

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<sup>6</sup> Tran, Tran, Pierre. 2012. "Regulation, Expansion of French Private Security Firms Urged." *Defense News*. February 2. And Avant, Deborah D. 2005 *The Market for Force: The Consequences of Privatizing Security*. New York: Cambridge University Press, page 8.

<sup>7</sup> Graham, Stephen. 2012. "Olympics 2012 security: welcome to lockdown London." *The Guardian (London)* (March 12). <http://www.guardian.co.uk/sport/2012/mar/12/london-olympics-security-lockdown-london?newsfeed=true>

perspective of public policy (Engbrecht 2011; Ortiz 2010; Stanger 2009), economics (Brauer and Van Tuyll 2009 [2008]), political science (Carmola 2010; Dunigan 2011; Avant 2005), international relations and security studies (Bruneau 2011; Carafano 2008; Isenberg 2008; Kinsey 2006; Mandel 2002; Shearer 1998; Singer 2003; Stanger 2009), law (Dickinson, 2012; Gul, 2006; Verkuil 2007) and contractor- military relations (Camm and Greenfield 2005; Dunigan 2009; 2011; Kelty, 2007; 2008; McCoy 2009; 2010). These academic and journalistic accounts have made important contributions to a broad understanding of operations and consequences of this industry.

Most of this literature on the industry takes a similar approach, providing an overview of the industry and making a compelling argument for why it should be of concern. This is usually followed by a historical narrative, often juxtaposing the “free company” private military companies of the “middle ages” with the emerging monopoly of legitimate use of force by state security beginning with the treaty of Westphalia and accelerating after the French Revolution. They discuss changing forces of deregulation, globalization and neo-liberalism after collapse of the Soviet Union. Case studies discuss some of the most prominent firms, such as Executive Outcomes, Sandline, Halliburton, Blackwater, Dyncorp and MPRI. Nearly all of these studies focus heavily on the relationship of these firms and the state, as well as the risks of “outsourcing sovereignty,” accountability and control.

In this literature, the role of private military and security companies is considered in relation to the state’s monopoly of the legitimate use of force and the degree to which this relationship is instrumental or competitive (Avant 2005; Mandel 2002; Singer 2003; Carmola 2010). An alternative perspective considers participation of private companies in this realm as complementary to public authority (Abrahamsen and Williams 2007; 2009; Leander 2005). The “complementary” paradigm nonetheless notes shifting patterns of global governance. In this view the state no longer acts alone or even necessarily with the greatest knowledge or authority. Nor are these activities bounded by national borders. The emerging security networks are “public-private” and “global-local.” They arise from the globalized “authority of private security needs,” processes that have allowed private firms to

be accepted as legitimate authorities in the realm of security, and the resulting incorporation of these entities into hybrid networks (Abrahamsen and Williams 2007).

In this account the power of private military and security companies to shape the security agenda has also enhanced their own role in the process. On the one hand, their competence is growing through experience. On the other, they leverage knowledge and access to shape the perspective of key actors. This “epistemic power,” or influence derived from knowledge, is used to shape the security discourse, and when combined with their position in newly hybridized “public-private” and “global-local” security networks, also confers structural power and authority (Leander 2005). This leads to “global security assemblages,” a new form of governance in which nation state neither fully relinquishes authority in the realm of security, nor maintains its monopoly (Abrahamson and Williams 2009). Private actors take on significant power and authority through their knowledge (“epistemic power”) and network position (“structural power”). Through this process, security also transcends spatial bounds and the sole authority of the nation state. The implication is that private companies increasingly influence priorities in this realm. They shape the understanding, nature and prioritization of threats (Leander 2005). They also shape decisions regarding who is secured and how it is done (Abrahamsen and Williams 2007). In the process they also reinforce themselves as indispensable knowledge experts (Abrahamson and Williams 2007; 2009; Leander 2005).

This dynamic is seen in the evolving manner in which international patterns and norms manifest themselves. Multinational firms increasingly rely on private companies to protect property and activities across borders (Avant 2005), as do individuals (O’Reilly 2011). Nations rely on them when involved in international military activities (Isenberg 2009a; 2009b; Singer 2003). This capability builds from expertise developed in private national policing (Abrahamson and Williams 2007; Mandel 2002) and international development operations (Joachim and Schneiker 2012).

The Olympics event noted at the beginning of this paper is an example of a “public-private” and “global-local” venture. This is an example of an opportunity for exploitation as well a location for diffusion of norms (Harper 2003; Kirzner 1997). From one perspective: “In turn, the deployment

of mass security generates Olympic ‘spaces of exception’ that have become standardized, mobile and globalized, and have the potential to become dissociated from the specific geographical context of the host cities (Coaffee 2011:118).”

It has similarly been noted that:

Security has now become to a significant extent a technique and a form of expert knowledge that, while specialized, is no means the sole purview of public authorities and that may in fact be more effectively exercised by private providers. These trends have facilitated a specific form of depoliticization: a de-linking of security from public authority that is related to the growth of private security, as well as to its legitimation and the authority it wields. (Abrahamsen and Williams 2007:242).”

This perspective argues that there is a “public-private” “global-local” “hybrid” “global security assemblage” in construction (Abrahamson and Williams 2007; 2009). While the state is not exiting the security business it is complemented by an increasing presence of globalized private security. As in the case of London 2012 the state is still the only force capable of deploying warships, jet fighters, surface to air missiles and thousands of trained and reliable personnel at the last moment under dynamic and ambiguous circumstances. On the other hand, while states remain spatially fixed, global events such as the Olympics move every two years and are seen as a way to transmit “best practices.” Global security firms are increasingly likely to participate in this business, leveraging their experience in previous international sporting events.

As noted above, most of the work on private military and security companies has focused in relations with the state. Many of these studies cite Max Weber, but focus on his emphasis on state monopoly of the legitimate use of force, rather than borrowing from his organizational theory. Only a small number of studies touch on some aspects of organizations or organizational theory. These studies have struggled with understanding how to categorize and analyze these organizations, define their emergence or explain the dynamics of the industry over time. Without an organizational perspective it is not possible to gain a comprehensive understanding of the emergence and dynamics of the industry beyond anecdotal evidence and idiosyncratic examples. This results in an incomplete



view, disproportionately influenced by the nature of the organizations or institutions that are considered, as well as the focal relationship of some of them with state agents.

Early studies focused on instrumental use of these firms for intervening in small conflicts (Shearer 1998). Others concentrated on “undertaking a largely conceptual and integrative study of security privatization (Mandel 2002:3).” An example of the typical approach of these studies is...

That the objective of this work is not simply to create a compilation of facts about individual firms operating in the military field. As significant as it would be to finally collect the often incongruent information about the industry in one place, the creation and implementation of an overall analytic architecture is more important. This book organizes and integrates what we know about the firms in a systematic manner, allowing for the development of underlying theories that can guide us in the future. (Singer 2003:ix)

In the few cases that organizational approaches are considered, they are usually in the context of “markets versus hierarchies,” and again almost exclusively in the limited focal relationship with state agents (Avant 2005; Brauer and Van Tuyll 2008; Fredland 2004; Williamson 1975; 1985; 1999). Some of the literature considers the effects of social norms and professional standards on the industry (Avant 2000; 2005; Avant and de Nevers 2011; Berndtsson 2012; Franke and von Boemcken 2011; Higate 2011; Joachim and Schneiker 2012; McCoy 2012; O’Reilly 2011; and Thumala, Gould and Loader 2011). One of the stronger attempts at organizational assessment argues<sup>8</sup>:

PMSCs are what organizational theorists refer to as ‘informal organizations,’ entities whose basic structure resists easy categorization. Such organizations can act effectively in unclear situations, are quick to adapt, and cohere through informal trust networks. Many times, such informal organizations play a ‘boundary- spanning’ role between two other formal organizations- in this case the military and the bureaucracy. (Carmola 2010:10)

In this analysis private military and security companies are “protean shape shifters.” “They combine the worlds of the military, the business world, and the humanitarian NGO in unfamiliar ways. The reason they are so hard to understand is that they combine

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<sup>8</sup> Carmola notes inspiration from Richard Scott (1981)

organizational cultures that in many cases have defined themselves in opposition to one another (Carmola 2010:26).” Unfortunately, this promising insight does not go further.

The rare organizational consideration has focused on individual firms or the entire field.<sup>9</sup> Lacking are studies that can generalize across organizations using population level data and analysis. While there is an organizational literature that uses case studies (Collins 2001; Collins and Porras 2004 [1994]), others have cautioned against drawing conclusions based on a limited sample of selected cases (Aldrich and Ruef 2006; Dew and Hudgens 2008; Hannan and Freeman 1989; Scott and Davis 2007). The kind of organizations that are selected, usually large high profile cases which are mostly successful, are a biased sample not representative of the overall population. This has tended to be the pattern, as noted above, in the private military and security literature.

To date, there has only been one attempted population census of these companies (Dew and Hudgens 2008). Students at the Naval Postgraduate School collected a database of 550 private military and security companies that emerged between 1970 and 2006. They obtained founding dates on 40%, capabilities on 70% and national origin on 90% of the firms identified. This effort suggested that firms tended to be heterogeneous, operating across the “spear,”<sup>10</sup> from logistics to combat support to combat operations, sometimes in the same firm (Avant 2005; Bruneau 2011; Dew and Bryan, 2008; Singer 2003). This study suggested that more than half of all firms were from the United States, with another 20% from the United Kingdom. In addition to operating across the “spear,” firms operated globally. Additional information was derived from the 550, with 230 cases identifying founding years. The nature of founding and year and nature of termination does not appear to have been collected.

The challenge this population poses to organizational studies is that:

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<sup>9</sup> For discussion of fields see Aldrich and Ruef (2006), DiMaggio and Powell (1983) or Scott and Davis (2007)

<sup>10</sup> The analogy to a “spear” refers to the “point end” as the combat and close to combat operations, whereas the “shaft” represents the direct combat support, as well as services such as logistics and construction.

It is extremely difficult to generalize about private military and security firms. As an industry, or at least, business sector, PMCs have been around for less than 20 years. And although they have attracted growing attention from analysts, scholars, government, and the general public the past decade, there are still not agreements in how to define them, let alone categorize them. (Isenberg 2008:157)

Also:

Because they remain uncategorized by any formal measure, the exact number of PMFs that have entered the market is difficult to establish and most definitely remains in flux. The global number is estimated to be in the mid-hundreds. In London alone there are headquartered at least 10 firms that have overseas contracts thought to be worth more than £100 million (roughly \$160 million). These firms have more than 8,000 ex-British soldiers on their books as employees. Similarly, at least several dozen firms based in the United States specialize in providing tactical and consultative military services. Another 60 such firms work in the demining sector. If one broadens the counting of PMFs to include back-end military support firms, or diversified firms, the number multiplies. (Singer 2003:79)

The balance of this paper is intended to build on, and complement, the previous work on private military and security companies. The intent is to provide a more comprehensive and representative understanding of this population of organizations, the nature of its emergence and how it has been shaped over a long period of time. In doing this I analyze the data from a census of 1,477 of these firms that I collected through the perspective of organizational theory. This adds a new dimension to analysis of this population distinct from previous attempts to explain it. In doing so, it seeks to answer questions not yet addressed regarding the nature of organizational founding and population level emergence, as well as adding to the organizational theory literature on these topics. Additionally, it seeks to add to understanding of the role of legitimacy and institutional factors shaping and enhancing the survival prospects of this population specifically, and new populations more generally.

## **CHAPTER 3**

### **ORGANIZATIONAL POPULATIONS AND THE PROBLEM OF EMERGENCE**

As can be seen in the previous section, the literature on private military and security companies has been struggling with defining and explaining what population ecologists refer to as new organizational forms. While individual organizations are frequently founded and disbanded, and a great diversity of forms and functions proliferate, organizational ecology theorizes that new populations emerge when new organizational forms demonstrate a fit with new niches created through changes in the environment (Hannan and Freeman 1977; 1986; 1989b). The resulting successful variation is selected for retention while organizations that are not well adapted fail (Aldrich and Reuf 2006). Resource availability defines a theoretical carrying capacity for organizations in these environmental niches (Hannan and Freeman 1977; 1986; 1989b). Institutional processes further shape these populations and their perceived legitimacy (DiMaggio and Powell 1983; Meyer and Rowan 1977; Powell and DiMaggio 1991). Legitimacy in turn enhances survival prospects (Hannan and Freeman 1986; 1989b).

#### **New Populations of Organizations**

New populations emerge when new forms proliferate that are best fit with niches created by changes in the environment. “An organizational form is a blueprint for organizational action, for transforming inputs into outputs.” (Hannan and Freeman 1977; 935). Forms can be defined by formal organizational structure, patterns of organizational activity or normative orders (Aldrich 2008; Hannan and Freeman 1977). They can also be tied to goals, activity systems and boundary maintenance (Aldrich 2008).

This still leaves open the question of to what we owe the emergence of these new forms. One perspective suggests:

The selection process inherent in an ecological model partially explains the rates of organizational founding and failure. This is the structural part of the model. There is an *agency* part as well, in which the relevant social actors make choices. In the case of the founding of new organizations, the relevant actors are the entrepreneurs who create them. Whether these entrepreneurs fully embrace the density model or not, we can well expect that they will prefer to enter into niches that are not too crowded when they are defining the forms and needs of their organizations. (Lune 2010:122)

Population ecology (Hannan and Freeman 1977; 1989b), the application of ecological theory to organizational studies, provides insight into the dynamics of organizational populations over time. This provides a method of analysis of populations of organizations from their founding, through growth and maturity. Inertia in existing organizations makes it difficult for them to quickly adapt. Changes in populations take place as a result of variation provided by new organizations, rather than the less likely adaptation by existing organizations, as internal and external pressures towards inertia make it difficult for these organizations to change (Hannan and Freeman 1977). Social, economic and political conditions produce “niches” conducive to emergence and growth of organizational populations and sub populations that continue to grow as long as resources are available and the “carrying capacity” of the environment has not been saturated (Hannan and Freeman 1989b). As the population matures and consolidates, generalists replace specialists, leaving new forms to emerge in specialized niches and setting the conditions for the process to potentially continue (Scott and Davis 2007).

Ecological analysis has been applied to a wide range of organizational populations. These have included Labor Unions (Hannan and Freeman 1987) European automobile companies (Hannan, Carroll, Dundon and Torres 1995), the semi conductor industry (Freeman 1990; Podolny, Stuart and Hannan 1996) newspapers (Carroll 1987; Carroll and Delacroix 1982; Carroll and Hannan 1989b), micro-breweries (Carroll and Swaminathan 2000), child care centers (Baum and Oliver 1992; Baum and Singh 1994) and hotels (Baum and Mezas 1992). In nearly all of these studies the population examined has been local, national or regional. Still left to be analyzed with these methods are newly emerged global organizational population such as the private military and security industry.

## **Entrepreneurial Opportunity Identification and Exploitation**

While ecological analysis of organizations provides a method for studying the dynamics of organizational populations over time, it does not provide an understanding of mechanisms that initiate new organizational variation leading to founding of new organizational populations. Literature on entrepreneurial action helps to fill in the remaining gaps. Entrepreneurial discovery and learning enable the emergence of new organizations for the purpose of exploiting these opportunities (Alvarez and Barney 2007; Shane 2000; Shane and Venkataraman 2000). Entrepreneurs organize to exploit opportunities opened up as a result of social, economic and institutional changes (Harper 2003). Once founded, populations establishing “cognitive” and “socio- political” legitimacy improve long term prospects for the greatest number of organizations possible in a population (Aldrich and Fiol 1994; Hannan and Freeman 1989b).

Opportunity discovery processes are used by entrepreneurs to seek out opportunities waiting to be found and exploited (Kirzner 1997; Shane 2000; Shane and Venkataraman 2000).

Entrepreneurs form organizations which can exploit opportunities created by competitive imperfections in the marketplace (Alvarez and Barney 2007; Harper 2003; Shane and Venkataraman 2000). Opportunity discovery theory assumes that opportunities arise exogenously. They come from technology, consumption, political and regulatory action, or social and demographic changes.

Entrepreneurs able to take advantage of these opportunities demonstrate alertness. Decisions are risky, with entrepreneurs seeking to identify possible outcomes and realistic probabilities of achieving them (Alvarez and Barney 2005; Harper 2003). Knowledge or experience with an industry or market can enable entrepreneurs to identify opportunities they would not otherwise be able to, and founding conditions may be a blueprint that determines both initial form and subsequent evolution (Hannan and Freeman 1977; Shane 2000).

## **Institutional Shaping and the Importance of Legitimacy**

New institutional theory suggests that isomorphic forces shape organizational populations and form them into organizational fields. These forces are both competitive and institutional. Institutional mechanisms, or processes, include: coercive forces such as legal and regulatory regimes; mimetic processes involving copying others in the absence of clear alternative, particularly in times of uncertainty; and normative processes established through professional standards and affiliation. Centralization and availability of resources also suggest which of these processes might predominate (DiMaggio and Powell 1983; Meyer and Rowan 1977; Powell and DiMaggio 1991).

While institutional processes play a role in shaping organizations, populations and fields, organizations and institutions affect each other, rather than being a one way relationship. For instance, California thrifts helped to craft the institutional environment, even as they themselves were affected by it, enabling a co-evolution of organizations and institutions (Haveman and Rao 1997). Hospital types both affected, and were affected by, the American Medical Association (Dunn and Jones 2010). Commercial radio both influenced the regulatory environment, and in turn was shaped by it (Lippman 2005; 2007). It also played a role in changing consumer practices and creating entrepreneurial opportunities for an emerging population of soft drink organizations in the 19<sup>th</sup> century (Hiatt, Shine and Tolbert 2009). New institutional theories of organizations have a lot to say about the forces shaping organizations, organizational populations and organizational fields. Alone, however, they have limited explanatory power in regards to the emergence of new populations of organizations as new institutional theory uses the existence of these populations as a starting point.

New organizational populations face constrained growth opportunities while their legitimacy is in question. Empirical studies suggest lower founding rates when industries are small and new, the highest mortality also found in these early years. Survival prospects are enhanced when organizations band together in industry groups (Hannan and Freeman 1989b). As organizational populations gain “cognitive” and “socio- political” legitimacy, learning increases, founding activity accelerates, institutional support grows and disbanding decrease (Aldrich and Ruef 2006).

New industries emerge when entrepreneurs succeed in mobilizing resources in response to perceived opportunities. Identifying opportunities, assembling resources, and recruiting and training employees are challenges facing all entrepreneurs, and all of these activities require cooperation and strategic interaction of individuals and groups. However, founders of entirely new activities, by definition, lack the familiarity and credibility that constitutes the fundamental basis of interaction. Many of the other constraints on a new industry's growth are thus magnified. Access to capital, markets, and governmental protection are all partially dependent on the level of legitimacy achieved by an emerging industry. (Aldrich and Fiol 1994:647)

Emergence of new organizational forms may result from variation of existing forms (Aldrich and Ruef 2006), as well as new structures (Hannan and Freeman 1986). Organized entrepreneurial action enables discovery and exploitation of these opportunities (Alvarez and Barney 2007; Harper 2003; Shane 2000). Institutional forces (Meyer and Rowan 1977; Powell and DiMaggio 1991) and coercive, mimetic and normative isomorphism (DiMaggio and Powell 1983) help to shape populations once they have emerged (Lippman 2005; 2007; Rao 1998; Walker 2009). Continued learning and adaptation are required for a population to achieve institutional legitimacy and retention, in the process enhancing survival prospects (Aldrich and Fiol 1994; Hannan and Freeman 1977; 1989b). This suggests the importance of successful interaction of these elements in order to explain the emergence, survival and growth of a new population of organizations. In the next section I apply this theoretical grounding to private military and security companies.



## CHAPTER 4

### EXPECTED FINDINGS

This paper is a preliminary study of the emergence of private military and security companies. It is informed by organizational theory, and in particular population ecology, entrepreneurial exploitation and discovery, the shaping affects new institutional theory, and the role of legitimacy in enhancing survival outcomes. It relies on a unique census of 1,477 private military and security companies that was specifically collected for this analysis. Given the organizational theory cited above, and applied to the private military and security industry, I have developed a set of expectations regarding this population.

#### **Opportunity Identification and Organizing for Exploitation**

As noted in the previous discussion on organizational theory, social, political and economic changes can provide opportunities for the emergence of new organizational forms and therefore populations of organizations (Hannan and Freeman 1977; 1989b). Entrepreneurs identify opportunities and organize to exploit them (Aldrich and Ruef 2006; Alvarez and Barney 2003; 2005; 2007; Harper 2003; Kirzner 1997; Shane 2000; Shane and Venkataraman 2000). Availability of opportunity, knowledge and resources determines a theoretical carrying capacity for a population of organizations, which provides for continued growth until a saturation point is reached (Hannan and Freeman 1977; 1989b).

Given the theorized relationship between opportunity identification and exploitation and organizational population growth, I expect that private military and security company growth will be related to opportunities that present themselves. While it might not be possible to follow all possible opportunities, the larger and more obviously available ones have been made known through the literature on this topic. Among others, these opportunities include, but are probably not limited to:

Globalization and deregulation from the 1970s; public- private partnership, outsourcing and third party contracting in the 1980's and 1990's; the end of the Cold War and downsizing of state security agents; conflicts in the Balkans and Africa in the 1990's; the wars in Iraq and Afghanistan in the 2000's; and the challenge of mass piracy most recently. I expect that each of these events represents an opportunity for new entrants into this population. I expect founding of new firms to accelerate as long as significant new opportunities present themselves.

### **Independent Entrepreneurial Action and Organizational Founding**

As noted in the discussion on organizational theory in the previous section, existing organizations have strong inertial characteristics, making it difficult for them to change (Hannan and Freeman 1977; Meyer and Rowan 1977). As a result, variation in populations results from the founding of new organizations (Hannan and Freeman 1989b). It is further theorized that these new organizations are founded by emergent entrepreneurs who have identified these new opportunities and organized to exploit them (Aldrich and Ruef 2006; Alvarez and Barney 2003; 2005; 2007; Shane 2000; Shane and Venkataraman 2000). As a result, I expect that most of the founding activity of these new organizations is through independent entrepreneurial action, rather than other mechanisms. Alternative mechanisms considered are direct government action, parent company action or mergers.

### **Legitimacy Enhanced Survival Prospects**

Organizational theory reviewed in the previous section notes that founding is slow and disbanding high until "cognitive" and "socio political" legitimacy is achieved, at which point population growth increases (Aldrich and Fiol, 1994; Aldrich and Ruef, 2006; Hannan and Freeman, 1986; Hannan and Freeman, 1989b). Furthermore, empirical research suggests that legitimacy is related to the formation of survival enhancing industry organizations (Hannan and Freeman 1989b). Given the theorized role of "cognitive" and "socio- political" legitimacy in enhancing organizational survival, my expectation is that population growth will accelerate with enhanced legitimacy, as represented by the establishment of industry organizations and interest groups.

Given the preliminary nature of research and data collection that I conducted for this project it would be premature to conduct a formal hypothesis test at this point. However, the relevant organizational theory reviewed for this paper informs expected behavior and outcomes within this population. Furthermore, the data collected for this project provides information suggesting the consistency of these outcomes with expected results. The next section provides detail on the data that was collected and the analysis that was done.

## CHAPTER 5

### METHODS, DATA COLLECTION AND VARIABLES

#### Methods

I compiled a census of private military and security companies and then used variables in the data set in order to see if patterns were present consisted with my expected findings. I took an ecological approach to this analysis (Hannan and Freeman 1977; 1989b). Ecological analysis looks beyond individual organizations in order to consider the dynamics of an entire population of organizations. It does this by aggregating key events across organizations in the population. These events include founding and disbanding, if applicable, of the organization. Ecological analysis also calls for the study of organizational populations over time. In large and complex populations, it requires study and understanding of the evolutionary nature of the population, rather than relying on a single cross sectional observation.

More specifically:

Ecologists analyze organizational birth, change, and death as the most informative dependent variables. Although differences exist in how much attention is paid to “external” conditions, such as political or institutional factors, there appears to be widespread agreement among ecologists in two methodological precepts: (1) study all members of the population. To focus on a subset- the survivors, the most effective, the *Fortune* 500- leads to bias in understanding the full range of organizations; (2) study processes that take place over time rather than relations among variables at a single point in time. Dynamic approaches focusing on processes uncover different connections than static or cross- sectional studies. (Scott and Davis 2007:246-247)

As part of this ecological analysis, I collected relevant aspects of organizational characteristics. I then aggregated this information to analyze the overall population dynamics. Combining the rates of founding and termination of organizations provides for an overall view of the rate of population growth or decline.

Because similar institutional events impact the overall population I note broader relevant social, political and economic factors and match them to the growth rate of the population, as stated in the expected findings section. To conduct this analysis, I overlay these key events on the growth of the organizational population over time and look for patterns that emerge.

### **Data Collection and Sources**

In order to do this analysis, I collected a unique data set of 1,477 private military and security companies. It was collected over 18 months, from April 2011 to September 2012. Data sources included published popular press and academic books and journals, news accounts, government reports and industry association membership lists. I also incorporated information from recruiters and candidates looking for industry jobs, allowing me to identify less public organizations through their labor market activity.

Information about the specific companies came from published sources. I was also able to obtain extensive information on these organizations through company websites. These websites often provided extensive detail on both the companies and the industry. Given the commercial nature of these businesses the websites are used for communication with customers, prospects, employees, job candidates and contractors. These websites are also used to convey competence and legitimacy to a broader audience including the general public, journalists, politicians, government agencies and other regulators. Many companies use Facebook, LinkedIn and/ or other social media for the same purpose, providing another source for data collection. Industry organizations often list members, information about these organizations, and details regarding the industry. Finally, legislators and government agencies often investigate and publish information on these organizations, providing yet another source of information.

### **Data Collected and Descriptive Statistics**

Data collected were intended to provide a detailed understanding of each firm. While a proximate use was to assess expected findings, I wanted to make sure that I considered a wide range of information to allow the census to be used in future research. I collected relevant variables to the

extent that they were available for that firm. Completing this census and related information was required for this study as no database of this kind was publically available. Compiling this database was an important contribution and attracted attention and support from those studying this industry.

The variables that I collected are detailed in Table 1: Data Collected.

**Table 1: Data Collected**

<i>Variable</i>	<i>Variable Name</i>	<i>Description</i>
V01	Name	Name of PMSC
V02	Website	Web address
V03	Type	Military, security or both
V04	Mode	Land, air or sea
V05	Service	Logistics/ construction; consulting/ intelligence/ training; operations
V06	Description	A description of the firm
V07	Customer	Military, other government, corporation, NGO, individual
V08	Founding	Information about the founding and/ or founder
V09	FY	Founding year
V10	F Action	Independent, parent company, government action, merger
V11	TY	Terminating year
V12	T Action	Terminated operations, acquisition, merger
V13	Country	Country of headquarters
V14	Region Ops	Regions of operations
V15	Industry Orgs	Membership in industry organizations
V16	Sources	Sources of information
V17	Address	Physical address, e- mail, phone number, etc.
V18	Comment	Other comments relevant to the organization

Research for compiling this census identified 1,477 firms meeting the description that I noted at the beginning of this project. I was able to identify websites for a total of 1,236 firms. I identified type, mode, service, customer, country of headquarters and region operations for all 1,477 firms. I was able to identify the founding year for 1,305 firms, or 88%, and the founding action for 843, or 57% of the firms. Terminating year was available for 147, or 10% of the firms, and terminating action was available for 130, or 88% of those firms identified as having disbanded. It is difficult to know what percentage of disbanded firms are identified in the data set, as it required evidence of disbanding to consider a firm no longer operating. Examples of this kind of evidence would be a notification by the firm itself that it was going out of business, announcements of mergers or acquisition, or press or other public notice of their demise. This partially accounts for nearly all firms

with terminating years having terminating action. Finally, industry organizations were only identified for 39% of the firms. This suggests that just over half of the firms do not belong to the major industry organizations. This information should be highly accurate as membership came from the industry organizations themselves. Percentage of information available for each variable is listed in Table 2: Data Availability.

**Table 2: Data Availability**

<i>Variable</i>	<i>Variable Name</i>	<i>#</i>	<i>%</i>
V1	Name	1,477	100%
V2	Website	1,236	84%
V03	Type	1,477	100%
V04	Mode	1,477	100%
V05	Service	1,477	100%
V06	Description	N/A	N/A
V07	Customer	1,477	100%
V08	Founding	N/A	N/A
V09	FY	1,305	88%
V10	F Action	843	57%
V11	TY	147	10%
V12	T Action	130	09%
V13	Country	1,477	100%
V14	Region Ops	1,477	100%
V15	Industry Orgs	578	39%
V16	Sources	N/A	N/A
V17	Address	N/A	N/A
V18	Comment	N/A	N/A

Firms were identified as private military and security companies if they met the criteria definition that was identified at the beginning of this paper. They had to be legal and for profit commercial organizations<sup>11</sup>, selling military and/ or security services in risky environments. While I did not require them to be multinational in nature, I did limit my sample to firms that had at least a large national footprint and work with governmental and/ or multinational corporations and/ or agencies. There are many local or regional (sub region of a nation) security firms that do only residential and commercial security, in most cases unarmed. While this is likely a very interesting and important industry to study, it is not the population that I was researching.

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<sup>11</sup> Here again I will note that a very small percent, like Bancroft, are organized as non- profit, while an additional but also small percent are also state owned for profit enterprises.

The first variable that I collected and recorded was the *name* of each organization. I included each of these as a separate entry if they were or had been a clearly identifiable and separate corporate entity, even if they had a relationship with another firm. Where they had a relationship with another firm I noted that as well. Where applicable, I also recorded the *website* address for each firm.

I then identified the *type* of firm, specifically whether the firm was in the military industry, the private security or both. I determined if the firm was in the military industry if it provided services to a military organization, or if it provided services of a distinctly military nature. These firms were classified this way, regardless of which military they provided these services for. For the most part, if the firm serviced a military customer I included it as a military firm. In some cases, there were firms that I included as “military,” even though they did not have a military customer per se, if their operations were distinctly military in nature. There were not many cases in this category, but one example was a firm that had been formed for the purposes of bidding on United Nations peacekeeping operations. Its client was the United Nations, a non- governmental organization, but the service was clearly military in nature. Therefore I included this as a “military” firm.

Most firms were either a hybrid of military and security (49%) or security only (49%). Only 1% of the firms in the data set were military only. This most likely indicates that firms with security related competencies will try to diversify their operations when possible in order to grow business. Looking at the data differently, a total of 746 firms, or 51%, provided military services either alone or in combination. A total of 1,461, or 99%, provided civilian security and related services, either alone or in combination with other services. Table 3 outlines this breakdown of “Firm Type.”

**Table 3: Firm Type**

<i>Type</i>	<i>#</i>	<i>%</i>
Security Total	1,461	99%
Military Total	746	51%
Hybrid Only	730	49%
Security Only	731	49%
Military Only	16	01%



The next factor that I identified was the *mode* of the organization. The common perception regarding private military and security companies is that of a ground based firm in Africa or the Middle East. While that is often the case, there are firms that specialize in aviation activities, either exclusively or in combination with other “modes.”

While most of the aviation activity is logistical or support in nature, there are a number of firms that move up the “spear” in aviation services. These include air drop and logistical insertion into combat areas, as well as maintenance and repair services in both secure and combat locations. Firms also provide air combat training with computer simulations and live aircraft.<sup>12</sup> At the pointier end of the “spear” firms provide combat mapping, surveillance, and battle damage assessment. Others provide combat experienced pilots to clients for overseas operations, as well as teams that provide services as specialized as aerial refueling.<sup>13</sup>

Maritime security has become a prevalent “mode” of operations for firms. As piracy has become an increasing concern, hundreds of firms have taken advantage of this opportunity to provide maritime consulting, ship hardening and on- board security teams. Newer firms are even providing escort ships, either retrofitted or newly equipped with combat equipment.<sup>14</sup> Pre- positioned floating armories these teams to pick up arms after leaving territorial waters and return them before re-

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<sup>12</sup> For instance, ATAC trains US and allied air forces using former Israeli Air Force Kfir fighters, Royal Air Force Hawker Hunters, US Navy A-4 Skyhawks and Warsaw Pact L-39 Albatross fighter- bombers. Top Aces, provides a similar service in Canada, flying Dornier Alpha Jets and other aircraft. Amber Tiger Aviation Management provides training to individual pilots in both Western and former Warsaw Pact rotary wing aviation platforms, including CH-47, Mi-8, Mi-17 and even Mi24/35 attack helicopters.

<sup>13</sup> For instance, Russian firm Sukhoi provided a team of 250 employees who served as combat pilots, ground crew and maintenance workers for Su-27 fighters used in their war with Eritrea. Executive Outcomes pilots flew company owned aircraft, including former Warsaw Pact Mi-8/17 and Mi-24/35 attack helicopters and MiG fighters in combat in Angola and Sierra Leone. Omega group provides aerial refueling to the US Air Force, using B707 and DC-10 aircraft reconfigured in the same manner as Air Force KC-135 and KC-10 aerial refueling aircraft. Other contractors identify targets and “fly” UAVs on attack missions for the CIA in Pakistan, Yemen and other locations.

<sup>14</sup> For instance, Armed Piracy Defense has networked 25 other maritime security companies together, providing a pool of 400 security teams available to support ship crossings in the high risk triangle between West Africa, the Gulf of Aden and Sri Lanka.

entering others. It is estimated that 40% of commercial shipping in these high piracy waters carry security contractors on board.<sup>15</sup> Additionally, efforts have been made to train local forces to combat piracy both on and off their shores.<sup>16</sup> This combination of efforts has credited private military and security companies with a major contribution towards successful counter piracy operations.<sup>17</sup>

The *mode* of firms varied considerably. The vast majority of 1,245 firms, or 84%, engaged in terrestrial operations. A total of 902, or 61%, engaged in only terrestrial operations. A small number, 143 or only 10%, engaged in aviation operations, with most of those in logistics or maintenance. Only 33 firms or 2% engaged in aviation only operations. A growing number, at 497 or 34%, of the firms were engaged in maritime operations. A surprisingly large number, of 198 or 13%, of the firms were engaged in only maritime operations. Table 4 shows the breakdown of “Mode of Operations.”

**Table 4: Mode of Operations**

<i>Mode</i>	#	%
Terrestrial Total	1,245	84%
Terrestrial Only	902	61%
Maritime Total	497	34%
Maritime Only	198	13%
Aviation Total	143	10%
Aviation Only	33	02%

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<sup>15</sup> “Piracy and private security: Laws and guns: Armed Guards on ships deter pirates. But who says they are legal?” *The Economist*. April 14, 2012. (Accessed April 14, 2012). An experienced four person team will often cost as much as \$45,000 for one passage. Insurance companies will often pay the cost of these contractors as the cost of paying pirates to release ships runs into the tens of millions of dollars and no ship with maritime security contractors has been successfully hijacked.

<sup>16</sup> Contractors such as Bancroft Global have been hired by the U.S. Government to train the Somali and Kenyan Coast Guards, while the United Arab Emirates has funded a contractor Sterling Corporate Services led effort to train and equip the Puntland Maritime Protection Force of that semi- autonomous region of Somalia. These operations in African, India and the Middle East learned from private security anti piracy operations previously conducted in the Malacca Straights and Southeast Asia (as the pirates themselves may have as well) (Hernandez, 2010).

<sup>17</sup> “The decrease in attacks appears to be a result of increased security measures taken by commercial vessels and of sustained antipiracy patrols by the navies of more than a dozen nations, including the United States. Admiral Fox said the shipping industry “can take a great deal of credit” for the trend. More commercial vessels are carrying “embarked security teams” of armed guards, he said, and no vessel with such a team on board has been hijacked.” (Shanker, 2012)

I then noted the types of *service(s)* the company provided, moving progressively up the “spear” from least combat to most combat oriented. The first service category was logistics and construction. The second was intelligence, advice and training. The third was direct security operations, often of a “coercive nature.” Many firms provided combinations of these services, the provision of one leading to the need, or opportunity, to provide others.

Leveraging resources for exploitation of multiple opportunities relates to the range of services provided as well. A total of 378 firms or 26% engaged in specialized military or security related construction and/ or logistics. Only 66 firms or 4% engaged in these services alone. Another 1,410 or 95% engaged in specialized military or security related intelligence, advice or training, either by themselves and/ or in combination with other services. A total of 202 firms or 12% engaged in these services only. And 1,092 or 74% of the firms engaged in direct operations either on their own and/ or in combination with other services. All firms that were engaged in direct operations also engaged in some aspect of advice, intelligence and/ or training. This supports the notion that firms leveraged operational capability in order to provide advice, training and/ or intelligence as additional services and vice-versa. As noted earlier, these private military and security firms leverage their knowledge (“epistemic power”) and network position (“structural power”) to further build business (Leander 2005). This is also evidence of “cognitive legitimacy.” Table 5 notes the breakdown of “Services.”

**Table 5: Services**

<i>Services</i>	<i># Firms</i>	<i>% Firms</i>
Intelligence/Advice/Training Total	1,410	95%
Operations Total	1,092	74%
Logistics/Construction Total	378	25%
Intelligence/Advice/Training Only	202	14%
Logistics/Construction Only	66	04%
Operations Only	0	00%

The next variable was the type of *customer(s)*. I identified organizations providing services to military organizations. I noted when firms provided services to other government organizations. These included police, intelligence, correctional institutions/ prisons or foreign services, and aid operations such as United States Agency for International Development, among others.

The next category of customers was other “companies.” These included both privately held and publically traded corporations. As the size and scope of global companies and their operations has increased, their engagement with private security firms has increased as well.<sup>18</sup>

The fourth category was “non- governmental organizations” or NGOs. These included the United Nations and its agencies, as well as human rights, developmental and other organizations. These are increasingly prevalent users of private military and security services, often refusing to do work without them (Rubin 2010).<sup>19</sup> When the Afghan government first threatened to terminate operations of private security companies, aid organizations said that they would shut down operations without the availability of these firms,<sup>20</sup> and aid programs themselves have been increasingly outsourced to private aid organizations.<sup>21</sup>

I noted firms providing services to individuals, such as high income customers, executives, and “VIPS” and their families. They can be preventative, such as site hardening and guarding, or reactive, such as kidnap rescue and recovery (O’Reilly 2011) and even K-9 services.<sup>22</sup> Maritime

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<sup>18</sup> Hirsh, Afua and John Vidal. 2012. “Shell spending millions of dollars on security in Nigeria, leaked data shows Internal documents reveal oil company spent \$383m over three years protecting staff and installations in Niger delta region” *The Guardian*. August 19 (Accessed September 29, 2012). Shell, as one example, spent nearly \$1 Billion on security between 2007 and 2009.

<sup>19</sup> The United Nations alone spent \$44 million on private security contracts in 2010 and \$76 million, with most in support of the United Nations Development Program, followed by United Nations Peacekeeping Operations (Pingot 2012).

<sup>20</sup> Rubin, Alissa J. 2010. “Afghan Projects May Stop When Security Ban Begins.” *The New York Times*. October 22 (Accessed November 9, 2010).

<sup>21</sup> An example of an aid and development firm is Development Alternatives, Inc.

<sup>22</sup> Tierney, John. 2011. “For the Executive with Everything, a \$230,000 Dog to Protect it” *The New York Times*. June 11 (Accessed September 29, 2012) Harrison K-9 Services, provides trained dogs for Navy Seals and British Special Services, also provides them high net work families at a cost of up to \$230,000

security firms often provide specialized yacht security services. This has become a particularly lucrative as the number of high income and high net worth customers has increased.<sup>23</sup>

The diversity of opportunity identification and exploitation is evidenced by the range of customers served. A total of 739 firms, or 50%, served military of various countries around the world, either alone or in combination with other customers. Another 1,020, or 69%, served other government customers. More telling, 1,362, or 92%, served corporate customers. Another 615, or 42%, served non- governmental organizations. And 710 or 48% served private clients. Only 160 firms or 11% served only one customer type, with 130 or 9%, serving corporate clients only.

**Table 6: Customer Type**

<i>Customer</i>	<i># Firms</i>	<i>% Firms</i>
Corporations Total	1,362	92%
Government Total*	1,020	69%
Military Total	739	50%
Individuals Total	719	48%
NGOs Total	615	42%
Corporations Only	130	09%

\*Not including military

I identified the *founding year* of the organization when available. I also identified the *founding action* when available. *Founding actions* included “Independent entrepreneurial action,” “parent organization action,” “government action,” or “merger.” In order to determine the nature of the founding, I reviewed the statements about the founding for each firm. This was often available on the website of the firm, or in other documentation about the organizations. These firms were often quite proud of their heritage and anxious to detail their founding. This was particularly true when the founder was still involved in the running of the firm.

An example of a founding by independent entrepreneurial action is Abila:

President Vern Abila is a 19-year veteran in the security, investigative and training industries. He founded Abila Security & Investigations Inc. (ASI) in 2001 and designed and implemented a world class Security, Training, Military and Law Enforcement equipment sales division globally, and a diverse client base: the U.S.

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<sup>23</sup> “Forbes World’s Billionaires 2012.” *Forbes*. March 7, 2012 (Accessed March 7, 2012). In just one example from the highest category, *Forbes* reports that the number of billionaires has increased from 140 when their first list was compiled in 1987 to 1,226 today, with total net worth of \$4.6 trillion.

Government, Fortune 500 firms, private individuals, CEOs and Hollywood megastars. (Abila)

Another example of independent entrepreneurial action is AEGIS:

Aegis was founded in 2002 by Lt Col Tim Spicer and three partners, Mark Bullough, Jeffrey Day and Dominic Armstrong. In a world of rapidly evolving geopolitical change they saw the need for a company that understood how to respond to new threats and their consequences for governments and multinational corporations – one that could provide much broader solutions than physical security alone. The strategic vision, therefore, was for an organisation that encapsulated the entire risk management process of identifying, analysing and mitigating risk in a variety of scenarios, and it is this approach that most clearly sets Aegis apart from its main competitors today. (Aegis)

One more example of independent entrepreneurial action is Triple Canopy:

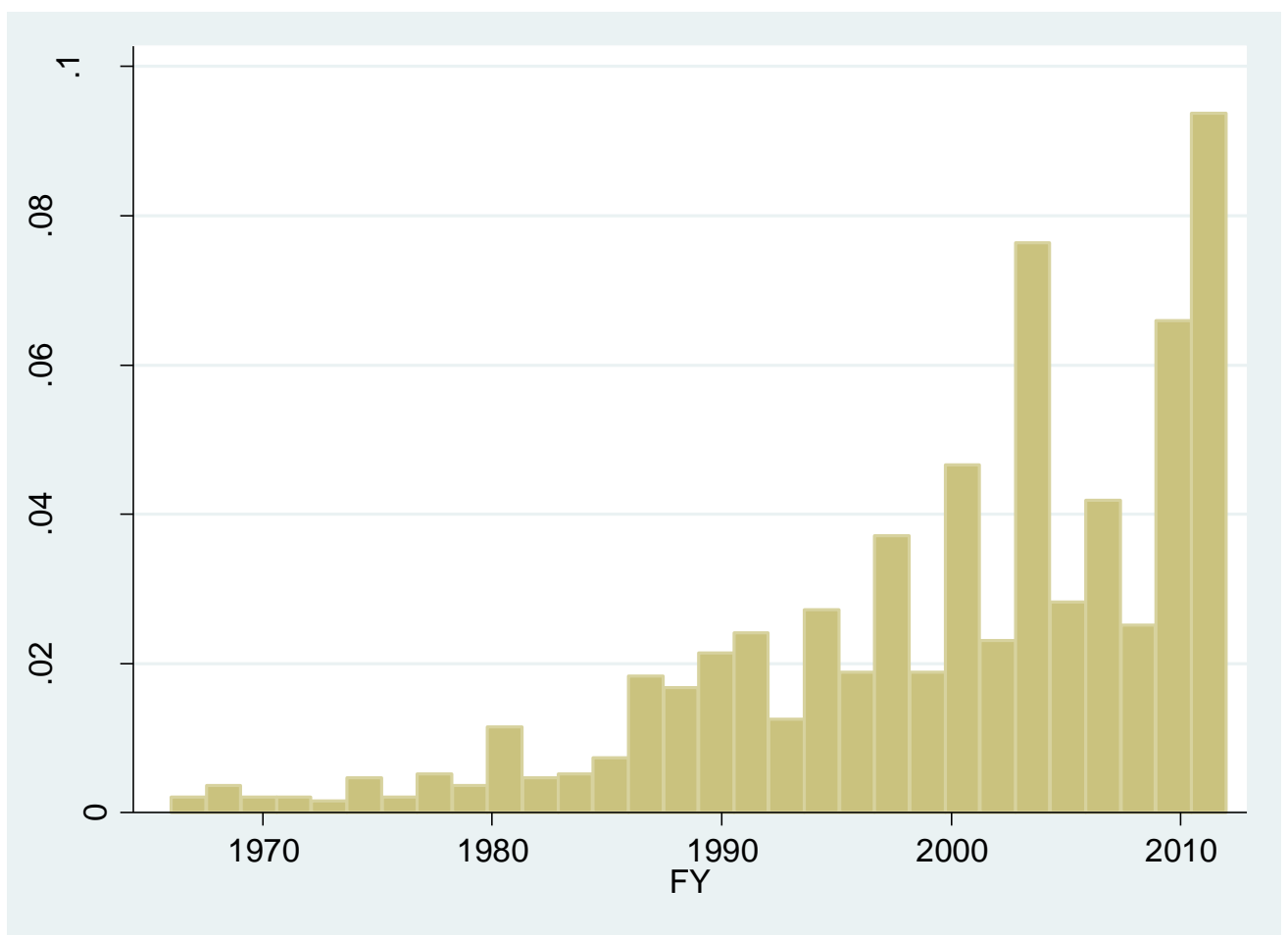
Mann and one of his partners, Tom Katis, an old friend from Special Forces, talked after 9/11 about starting a business that might somehow address the threat of terrorism. They thought they might use their military backgrounds to train government agencies in anti-terrorism techniques. On a Special Forces exercise in Central America (both men were, at that point, in the National Guard, Mann having moved on from the regular Army to work as a civil engineer and Katis having graduated from Yale and begun a career in banking), they dreamed of their unborn enterprise under the jungle foliage -- the layered jungle canopy from which they took their name.

They didn't have much else. They were a name, a notion, when they heard about the C.P.A. security work and started bidding for the contracts. With money borrowed from family and friends, they began hiring former Army colleagues on the chance that the company might somehow succeed. They had little but résumés to give them hope. The résumés, though, were impressive. Mann spent six years with the Army's Delta Force, its most selective, most keenly trained and most secretive unit, and he recruited retired Delta operators. He is an irrepressible man with full, close-cropped gray hair, blue eyes and a radiant smile, and as he told me about Triple Canopy's early days, he recalled his disbelief at the men who were drawn to the company. "He wants to work for me?" he said he thought, over and over. But his modesty went only so far. "Rock stars like to work with rock stars," he said. The ex-Delta soldiers, heavily decorated and with all kinds of combat and clandestine experience, kept signing on. (Bergner 2005)

I was able to identify years of founding for 1,305 of these organizations. Of these 75% were founded since 1993, half since 2002 and 25% since 2008. Only 10% were formed before 1981.

Firms focused on maritime operations tended to be newer, with 75% founded since 2002 (versus 1990 for non maritime), 50% since 2008 (versus 1999 for non maritime) and 25% since 2011 (versus 2004 for non maritime). This most likely represents the emergence of new firms into a niche to which they are ideally suited. This reinforces the argument that it is easier for new firms to move into a new niche, whereas inertia makes it less likely that existing firms are able to do that (Hannan and Freeman 1977; Hannan and Freeman 1989a; 1989b). Chart 1 shows emergence by year of founding.

**Chart 1: Founding Year (All Firm Founding where Data Available)**



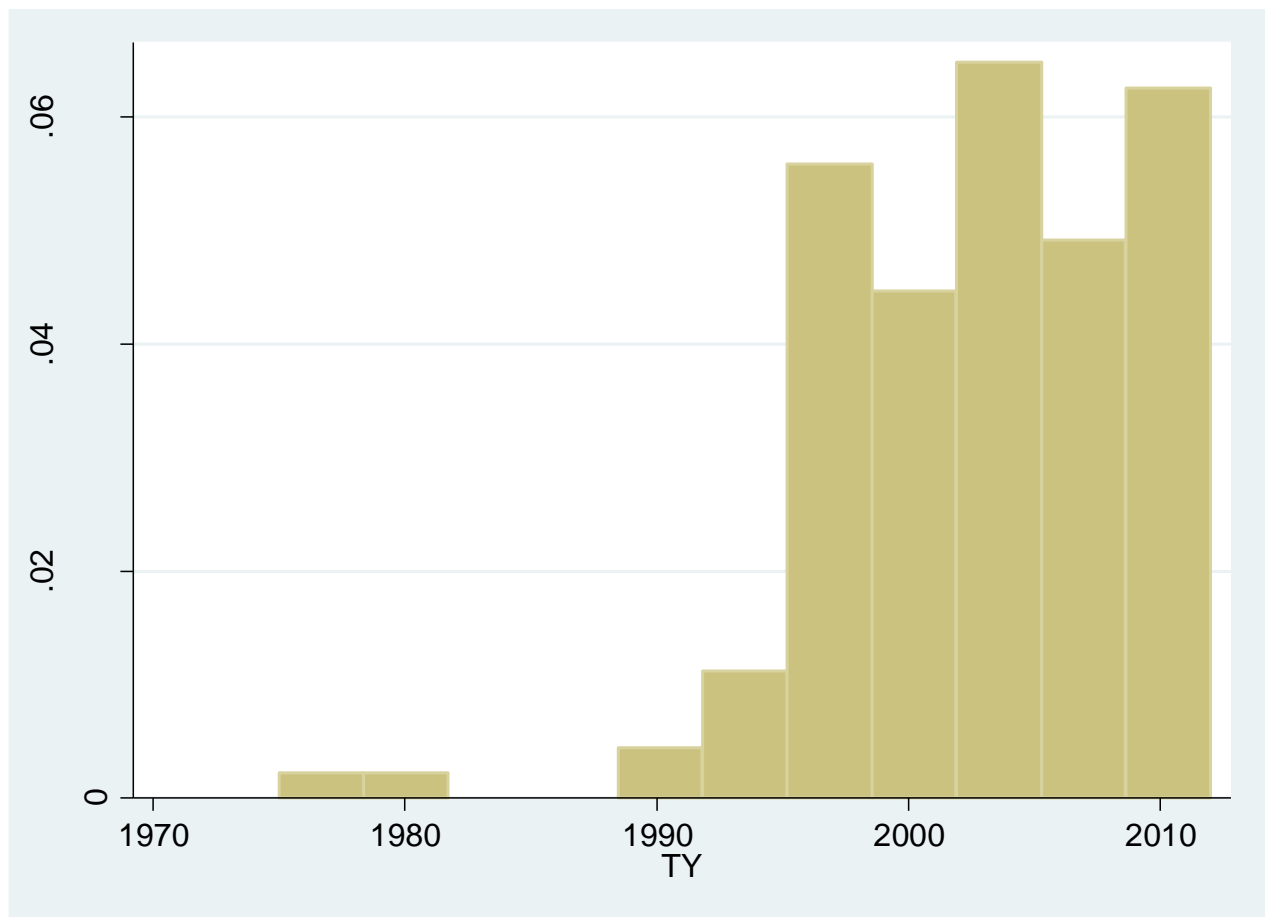
I identified founding action for 843 firms or 57%. Of these 619 or 73% were founded through independent entrepreneurial action; 186 firms or 22% were the result of parent company actions; 17 firms or 2% showed evidence of formation as a result of government action; and 21 or 2% there was evidence of founding through merger. Table 7 outlines “Founding Action.”

**Table 7: Founding Action**

<i>Founding Action</i>	<i># Firms</i>	<i>% Firms</i>
Independent Entrepreneurial Action	619	73%
Parent Company Action	186	22%
Merger	21	02%
Government Action	17	02%

Where applicable and available, I recorded *terminating year* and *terminating action*. I identified the action as “terminating operations,” “acquired by another firm,” or due to “merger.” There were 147 firms for which I could confirm termination. Termination years followed a pattern similar to founding years, but more recent. Of disbanding, 90% were since 1997 and 75% since 1998. Half were terminated since 2004 and only 25% since 2007. There has been more disbanding recently, though given growth this represents a substantial decrease in the *rate* of mortality among these firms.

**Chart 2: Termination Year (All Firm Terminations where Data Available)**





I also recorded the reason for firm termination where applicable and available. A total of 49 firms, or 38%, ceased operations. Another 51, or 39%, were acquired by another firm. Finally, 30 firms or 23% terminated as a result of mergers with other firms. Table 8 details the pattern of “Terminating Action.”

**Table 8: Terminating Action**

<i>Terminating Action</i>	<i># Firms</i>	<i>% Firms</i>
Acquisition	51	39%
Ceased operations	49	38%
Merger	30	23%

I recorded the home *country* of each firm, as defined by the location of the headquarters. I also noted *region operations* for each firm. These included Europe, the Middle East, Africa, Asia, South Pacific, Latin America or North America.

The data highlight the global nature of these firms. Companies in the data set come from 88 different countries. While the modal country of headquarters is the United States, with 527 or 36% of the firms, other countries are also highly represented. The United Kingdom has 366 or 25% of the firms. South Africa has 71 firms or 5%. The United Arab Emirates has 36, France has 32, Australia 29, Canada 26, Israel 25, the Netherlands 22, each roughly 2% of the total. Iraq has 20, Germany 17, Cyprus 16, Greece 16, Afghanistan 15, Malta 13, Russia 12, Hong Kong 12, Singapore 11, Switzerland 10 and Denmark 10, all roughly 1% of the total. All other countries in the data set have less than 10 firms. One other point to note is the relative weight of “continental” European countries in aggregate. Summing European countries, including Switzerland but excluding the United Kingdom and non NATO former Soviet countries, yields 188 companies. This would be the third largest in aggregate or 13%, not quite as large as the United Kingdom, but more than double the number of firms from South Africa. While there is a strong domination by the United States, the United Kingdom, “continental” European countries and South Africa, this has clearly become a global industry. The breakdown by most important countries is outlined in Table 9.

**Table 9: Private Military and Security by Country**

<i>Country</i>	<i># Firms</i>	<i>% Firms</i>
US	527	36%
UK	366	25%
Europe*	188	13%
South Africa	71	05%
UAE	36	02%
France	32	02%
Australia	29	02%
Canada	26	02%
Israel	25	02%
Netherlands	22	02%
Iraq	20	01%
Germany	17	01%
Cyprus	16	01%
Greece	16	01%
Afghanistan	15	01%
Malta	13	01%
Russia	12	01%
Hong Kong	12	01%
Singapore	11	01%
Switzerland	10	01%
Denmark	10	01%

\*Non UK or Non- NATO former Soviet

*Regions of operations* also reveal the global nature of these firms. A total of 731 or 49% operate in Europe; 961 or 65% in the Middle East; 887 or 60% in Africa; 791 or 54% in Asia; 650 or 44% in North America; 358 or 24% in Latin America and 238 or just 16% in the South Pacific. A total of 1,005 or 68% operate in more than one region. A total of 163 firms or 11% operate in *all* regions of the world. This is outlined in Table 10.

**Table 10: Regions of Operations**

<i>Region</i>	<i># Firma</i>	<i>% Firms</i>
>1 Region	1,005	68%
Middle East	961	65%
Africa	881	60%
Asia	791	54%
Europe	731	49%
North America	650	44%
Latin America	358	24%
South Pacific	238	16%
All Regions	163	11%

I included membership in industry organizations. These included, but were not limited to, a number of key organizations. Among others were the British Private Security Company Association (BPSCA), the International Code of Conduct (ICoC), the International Contractor Association (ICA), the International Stability Operations Association (ISOA) (formerly the International Peace Operations Association), the Private Security Company Association of Iraq (PSCAI), the Private Security Company Association of Afghanistan (PSCAA), the Security Association of the Maritime Industry (SAMI), and the Security Industry Association (SIA) of the UK, among others. A total of 578 or 39% of firms belonged to at least one of these major industry organizations. Of these 464 or 31% are signatories to the International Code of Conduct (ICoC).

I included fields with descriptive information on the companies and their founders. Where appropriate I completed fields for sources of information. I also recorded addresses and contact information. Finally, I also made notes if something stood out that was not easily captured in the other fields. Table 11 provides a “Summary of Descriptive Statistics.

**Table 11: Summary of Descriptive Statistics**

<i>Characteristic</i>	<i># Firms</i>	<i>% Firms</i>
<b><i>Type of Firm</i></b>		
Total Firms	1,477	100
Security Total	1,461	99%
Military total	746	51%
<b><i>Mode of Operations</i></b>		
Terrestrial Total	1,245	84%
Maritime Total	497	34%
Aviation Total	143	10%
<b><i>Services</i></b>		
Intelligence/Advice/Training Total	1,410	95%
Operations Total	1,092	74%
Logistics/Construction Total	378	25%
<b><i>Customers</i></b>		
Corporations Total	1,362	92%
Government Total	1,020	69%
Military Total	739	50%
Individuals Total	719	48%
NGOs Total	615	42%
<b><i>Founding</i></b>		
Founding since 2002	653	50%
Independent Entrepreneurial Action	619	73%
<b><i>Country HQ</i></b>		
US	527	36%
UK	366	25%
European*	188	13%
South Africa	71	05%
UAE	36	02%
France	32	02%
Australia	29	02%
Canada	26	02%
Israel	25	02%
Netherlands	22	02%
<b><i>Regions of Operations</i></b>		
>1 Region	1,005	68%
Middle East	961	65%
Africa	881	60%
Asia	791	54%
Europe	731	49%
North America	650	44%
Latin America	358	24%
South Pacific	238	16%
All Regions	163	11%
<b><i>Industry Organizations</i></b>		
Membership in at least one	578	39%
ICoC	464	31%
*Non UK or Non- NATO former Soviet		

## CHAPTER 6

### ANALYSIS AND RESULTS

Using the data collected for this project, I was able to consider the directional relationship of this evidence with the expected findings. As suggested in the review of descriptive statistics, there was directional evidence supporting these expected findings. I summarize the analysis related to each of the findings in this section.

#### **Opportunity Identification and Organizing for Exploitation**

Given the theorized relationship between opportunity identification and exploitation and population growth, I had expected that private military and security company growth would be positively related to opportunities available to be exploited. These related to critical institutional and security events as identified earlier in the paper. Given the nature of this industry, I expected growth to be related to these key events and institutional changes.

These specific events and institutional activities included an end of conscription in developed state militaries, which took place in Anglo countries by the 1970s and in the rest of the Organization for Economic Cooperation and Development (OECD) countries by the 2000s. Other key events included globalization and deregulation from the 1970's, accelerating through privatization in the 1980's, in the 1990's through public private partnership, and in the 2000's through the prevalence of outsourcing and third party contracting (Chatterjee 2009; Stanger 2009).

The end of the Cold War, between 1988 and 1991, led to both a restructuring of defense establishments and an acceleration of neo-liberal globalization under the "Washington Consensus." The downsizing of militaries in the United States, the United Kingdom, continental Europe, the former Warsaw Pact nations and South Africa contributed to providing a large numbers of skilled security professionals into the environment for exploitation by entrepreneurs. From 1989 to 2000, the

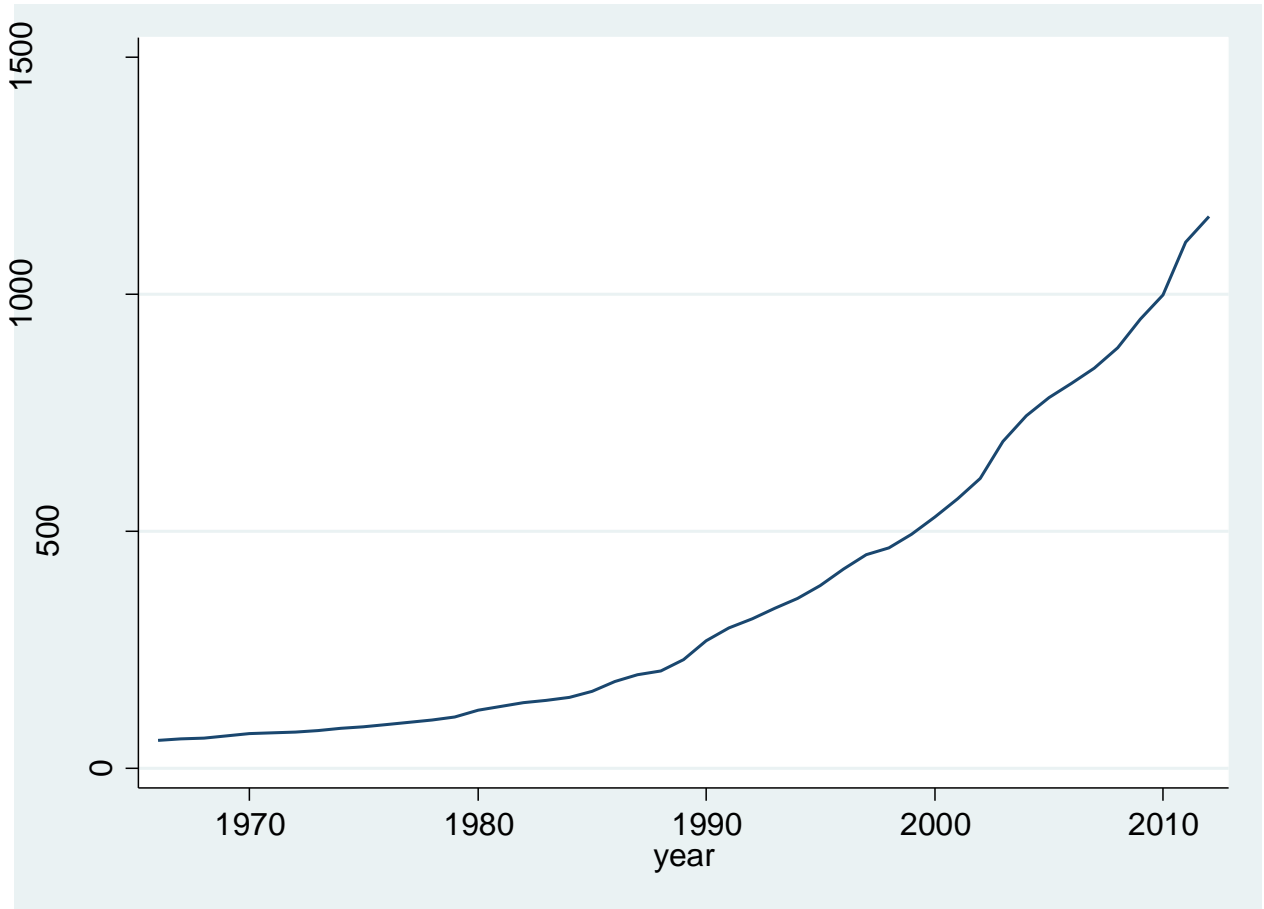
United States, the United Kingdom and South Africa decreased their active duty forces from 2.2 million, 300,000 and 138,000 to 1.4million, 212,000 and 70,000 respectively and by 2009, the respective forces stood at 1.4 million, 187,000 and 62,000 (Ortiz 2010). It is estimated that more than 6 million military and security professionals, from all nations, were released at the end of the Cold War (Carmola, 2010). A large amount of military equipment was also released from arsenals. These were abundant resources now available for entrepreneurs to recombine and reorganize for exploitation of opportunities.

The end of rigid Cold War blocks also had the paradoxical effect of unfreezing previously constrained socio- political strife. Specifically, there was increasing conflict in Africa, the Balkans, Afghanistan and Iraq. These locations became less stable even as state security agencies were unwilling or unable to provide the level of security required for business, non- governmental and individual needs. This created opportunities for private security. Increasing piracy in areas not under the responsibility of any state led to the need for private maritime security.

On the economic front, globalization, deregulation, the collapse of the Soviet bloc and liberalization in China provided new business opportunities for multi-national corporations, often in unsecured locations. Deregulated growth provided new wealth accumulation opportunities for high income individuals and with it the need for private and VIP security. As noted earlier, this economic opportunity was occurring as old security blocs were collapsing.

In Chart 3 I have aligned opportunity creation with the growth of the population of private military and security companies. It can be seen from this chart that the population is continuing to grow. Increasing growth corresponds roughly to important opportunity creating events. Although in some cases these events were country specific, for the most part these patterns remained consistent across countries and regions. This lends itself to a broader global perspective on these events and their relationship to the private military and security industry.

**Chart 3: Population Growth and Key Events**



**KEY EVENTS**      **Globalization**   **Privatization**   **End**   **Balkans**   **GWOT**   **Maritime**  
**Deregulation**      **LOGCAP**   **of**   **Public**   **Outsourcing**   **Security**  
**End Conscription**      **US, Anglo nations**      **Cold**   **Private**   **End Draft**   **ICoC**  
**War**   **Partnership**   **OECD**

It can be seen from Chart 3 that there is a relationship between these key opportunity creating events and the emergence of this population of private military and security companies. This can also be seen in Table 12, where I have aligned stages of population growth with opportunity identification and exploitation. This relationship increases over time, leading to the possibility that the relationship is merely related to time. Testing causality and the strength and nature of these relationships will require further analysis using more sophisticated multivariate models, incorporating time series analysis and/ or proportional hazard models.

**Table 12: Private Military and Security Population Growth and Key Events**

<i>Year</i>	<i>Percent since year</i>	<i>Key surrounding events</i>
1969	95%	
1981	90%	Globalization, deregulation, privatization, Anglo end conscription
1993	75%	End of Cold War, privatization, LOGCAP, Balkans
2002	50%	GWOT/Afghanistan/Iraq, OECD end conscription, outsource, TPC
2008	25%	Maritime security

As noted above although there appears to be a relationship between these key events and net population growth, there is also a strong relationship between growth and time. An alternative interpretation could be that the population is growing as it develops greater industry knowledge regarding what leads to business success, or “cognitive legitimacy,” as well as greater acceptance, or “socio- political legitimacy.” I discuss these dynamics later in the findings as well.

### **Independent Entrepreneurial Action and Founding**

Given the theorized role of the entrance of new organizations in the evolution of a population, and the role of entrepreneurial action in identifying new opportunities and organizing to exploit them, I expected independent entrepreneurial action to be related to organizational founding and the growth of this population. As expected, there is a prevalence of independent entrepreneurial action in the founding of new organizations. A total of 619 of the 843 cases where these data were available, or 73% of these firms, the founding action was identified as independent entrepreneurial action.

Another aspect of the data that supports the importance of entrepreneurial action in the growth of the population is the diversity of customer types. I noted earlier in this paper that the literature on this industry tends to ascribe the emergence of this population to state security agents outsourcing operations. This is certainly one of the opportunities exploited by these firms. The breadth of opportunities, as represented by the variety of customers, provides support for opportunity seeking entrepreneurs organizing for exploitation. As noted in the descriptive statistics, the customer base for these firms is quite varied. As seen in Table 6, more firms, 1,362 or 92%, have corporate customers than any other type. Non- military government customers are the next largest at 1,020 or 69%. This is only then followed by military, at 739 or 50%. This barely surpasses individual, high



net worth and VIP customers, at 719 or 48%. Even non- governmental organization (NGO) customers are served by 615 firms, or 42%. A significant 130 firms, or 9%, serve *only* corporate customers.

Also telling is the recent growth in the population almost entirely due to maritime security, a non state driven opportunity being exploited almost exclusively by new entrants into the population. Firms focused on maritime operations tended to be newer, with 75% founded since 2002 (versus 1990 for non maritime), 50% since 2008 (versus 1999 for non maritime) and 25% since 2011 (versus 2004 for non maritime). Of these firms, 198 or 13% were focused *exclusively* on maritime security. Of those firms focused *exclusively* on maritime security 90% were founded since 2003, 75% since 2008, 50% since 2010, 25% since 2011 and 10% since 2012. This lends support to the expectation that new entrants identify these opportunities and organizing to exploit them.

This also supports the notion, consistent with population ecology, that new entrants will maintain the growth of populations by exploiting emerging niches. Already existing population members are less likely to exploit those opportunities because they lack opportunity specific knowledge (Shane and Venkataraman 2000) and/ or due to organizational inertia (Meyer and Rowan 1977; Hannan and Freeman 1989b). Founders of these firms and organizations are almost always security specialists with detailed knowledge and experience in the type of opportunities that they are organizing to exploit, reinforcing the importance of “cognitive legitimacy.”

### **Legitimacy Enhanced Survival Prospects**

Given the theorized role of legitimacy in enhancing organizational survival, I expected new founding to be low, and disbanding high, until “cognitive” and “socio- political” legitimacy is enhanced. I expected that legitimacy, and therefore net population growth, to be related to the emergence and growth of industry and advocacy organizations. These organizations seek to enhance both shared learning, or “cognitive legitimacy” and a positive view and “lobbying” for the industry, or “socio- political legitimacy.”

**Table 13: Key Industry Associations**

<i>Year</i>	<i>Association</i>
2001	International Stability Operations Association (ISOA)
2004	Private Security Company Association of Iraq (PSCAI)
2006	International Contractor Association (ICA)
2006	British Association of Private Security Companies (BAPSC)
2010	International Code of Conduct (ICoC)
2011	Security Association for the Maritime Industry (SAMI)

While the list of industry organizations in Table 13 is not exhaustive, it identifies the most important industry organizations related to the global private military and security company industry. As can be seen from this list, all were founded since 2001, with most founded since 2006. The emergence of these industry organizations corresponds with growing legitimacy of these forms, decreased mortality and increased population growth. As can be seen from Chart 2 organization mortality has been flat to decreasing, even as founding has increased. This represents a decrease in mortality *rate*, as well as a net increase in the population.

While some of these industry organizations are national level associations, they represent the complex relationship of “global- local” assemblages (Abrahamson and Williamson 2007; 2009). While countries with large numbers of private military and security companies, such as the United States and the United Kingdom, also have important industry organizations, the relationship is more complex. The firms represented in the ISOA and the ICA primarily do international work in support of military, government and non- governmental organizations outside the United States. The BAPSC certifies members of British private companies wherever they operate. For the most part these industry organizations are advocating for their members, regardless of where the opportunities emerge. On the other hand, the Private Security Company Association of Iraq, and its counterpart in Afghanistan, were advocating for both local and global companies operating in those countries. SAMI and ICoC represent global associations for global companies. The combination of these firms represents the “global- local” nature of this industry as it has emerged.

Another example of the growth in legitimacy activities on behalf of this industry has been the establishment of an International Code of Conduct (ICoC). This was a 2008 initiative launched by the Swiss Government and the International Committee of the Red Cross (ICRC), with support from the United Nations (UN), to establish a set of norms that would be followed by private military and security companies. At the end of 2010, 50 companies signed on to this agreement. It reached 212 signatories by the end of 2011 and 464 signatories by August 2012 (International Code of Conduct).

This dynamic is also at play with maritime security. The Security Association for the Maritime Industry (SAMI) was formed in 2011. It has influenced a global best practice for maritime security called BMP4 (Best Management Practices for Protection against Somali Based Piracy). Most recently, the Baltic and International Maritime Council (BIMCO), which represents 65% of world shipping, has issued maritime security regulations, and a model contract, which will govern security activities of its members (BIMCO). As noted before, insurance companies recommend, and often pay, for covered ships traversing high risk pirate infested waters. These regulations are issued by non-state actors and govern the relations of private organizations with private security. Maritime opportunity is currently the fastest growing part of private security and driving the continued growth of the population.

### **Additional Observations**

While the findings of this study have tended to be directionally aligned to the expectations established at the beginning of this project, there have been some additional findings of interest that also tend to support the theory presented earlier. As expected, the emergence of this population has tended to be the result of new entrants, as represented by independent entrepreneurial founding. New opportunities, such as anti piracy activities, have provided opportunities for niche firms. This in turn has led to ongoing growth in the industry. This indicates that saturation has not yet occurred.

On the other hand, a harbinger of saturation is consolidation. While the continued growth of the population indicates that this point may not have been reached, there are some signs that consolidation might be occurring. The emergence of giant “supermarket” firms that represent all

services and support all customers on all continents is a new phenomenon in the industry. Examples of these firms include United Kingdom's Group 4 Securicor, Canada's Garda World, Sweden's Securitas and Spain's Prosegur. They have scaled substantially through both organic and acquisition growth, spanning across nearly all types of opportunities. They provide cash handling services, guard commercial locations, provide security for events of all sizes, engage in close protection and VIP services, they engage in battlefield combat, provision aircraft and contract for maritime defense. They have hundreds of thousands of employees across all continents and generate billions of dollars in revenue annually.

As noted earlier, G4S alone has 657,000 employees in 125 countries, had £7.8 billion in 2011 revenue, the world's largest provider of prison services and is publically traded on the London Stock Exchange (G4S; Gammeltoft-Hansen 2012). It is said to be the third largest private sector employer globally, after Wal-Mart and Foxconn. Swedish- Swiss Securitas has 300,000 employees in 50 countries, including the Pinkerton in the United States (Securitas). Garda World (Garda World) generated \$1.225 Billion (Canadian) in 2011, and is publically traded on the Toronto Stock Exchange. It is a large cash handling, airport security and commercial security provider in Canada and other countries. It is also a battlefield security provider, protecting such locations as the British Embassy in Iraq and the United States Embassy in Afghanistan. Spain's Prosegur (Prosegur) is another mega security provider. It is a publically traded corporation, with €2.8 Billion in 2011 revenue and has 125,000 employees across Europe, Latin American and Asia.

The emergence of these firms is a recent phenomenon. G4S only consolidated in its present form in 2004, growing significantly through acquisitions since then. While these companies represent a small portion of total firms, they are an increasing part of the industry. This will be an interesting evolution of the industry as some of the firms will rival the size and scope of their biggest corporate, and even some state, clients. This begs important questions asked in dependency theory (Pfeffer and Salancik 2008) and potentially ushers in the downward slope in the population's inverted "U" shape hypothesized in organization ecology (Hannan and Freeman 1977; 1989b).

## CHAPTER 7

### CONTRIBUTION, LIMITATIONS, FUTURE RESEARCH AND CONCLUSIONS

#### **Contribution**

This research contributes to a greater understanding of the private military and security industry in a number of ways. It led to compilation of a unique census of private military and security firms. It has further contributed to understanding this industry through the application of population level ecological analysis. It has provided support for the expectation that independent entrepreneurial action has played a key role in industry emergence. It has added detailed analysis of the dynamics of the population growth of the industry.

Conventional understanding of the private military and security industry has focused primarily on the relationship between government agencies, and usually just the United States Government and Military, to these private security companies. As a result, the literature tends to focus on governance and regulatory aspects of the industry (Carmola 2010; Isenberg 2008; Mandel 2002; Ortiz 2010; Singer 2003) or the relative effectiveness of private versus public force (Dunigan 2011; Engbrecht 2011). Other studies have focused on individual organizations, such as Crescent (Fainaru 2008), Executive Outcomes (Barlow 2007; Venter 2006) or Blackwater (Scahill 2008; Simons 2009). As such, these studies tend to take on an institutional (DiMaggio and Powell 1983; Meyer and Rowan 1977) or a transactional cost (Williamson 1975; 1985; 1999) orientation, if they consider organizational theory at all.

This is the first study that transcends these other approaches through an ecological analysis of the industry. The collection of a unique database of private military and security companies was a necessary enabler for this kind of research as it did not previously exist. Applying ecological analysis

allowed for the study of this industry at the population level. It required analysis of the industry as it emerged over time.

The result is an understanding of the dynamics of the entire global industry over time. While part of this analysis matches growth trajectories with key events effecting the population, this approach has the advantage of seeing beyond singular events, such as the war in Iraq, in order to understand the dynamic nature of the industry through its collective membership.

This study also contributes to organizational science by introducing another industry to ecological analysis. Previous populations studied in this way include newspapers, labor unions, high technology firms and restaurants (Hannan and Freeman 1989b). These were pre- globalization, deregulation and liberalization industries. As such, this study is an important application of this approach to a population of organizations formed after at a time when the conditions of neo- liberal globalization predominate. It is also among the only organizational ecology studies of a newly emergent global industry.

Furthermore, this study also contributes to organizational theory by pointing to entrepreneurial opportunity identification and exploitation as an important mechanism for the emergence and evolution of an organizational population. While population ecologists are explicit about the role that new organizations play in the emergence and evolution of a population (Hannan and Freeman 1977; 1989b), they are vague about the causal mechanisms involved. This study uses empirical evidence from the population of private military and security companies to indicate the importance of independent entrepreneurial action as a mechanism in the emergence of new organizational populations.

This study also builds on previous theory that suggests “cognitive” and “socio- political” legitimacy enhances the prospects for firm survival and population growth (Aldrich and Fiol 1994; Aldrich and Reuf 2006). It does this by supporting the theorized relationship between the role industry organizations and legitimacy of an organizational population (Hannan and Freeman 1989b). Industry organizations have grown in number and size, corresponding to the increase in size, role and

acceptance of private military and security companies, lending empirical support to this theorized relationship.

### **Limitations**

Like any other, this study has its limitations. First, while this database of organizations is treated as a census, there is no way of knowing what percentage of total organizations is represented. It is possible that this database is biased towards the most “legitimate” firms that have the willingness and ability to make them-selves known publically. This concern is mitigated somewhat by the large size of the database and the multifaceted data collection approach. Furthermore, firms whose behavior is perceived as illegitimate receive a great deal of media and public agency attention, making them both visible and well known.

Another limitation is that the dataset most likely under- reports firm disbanding. It is easier to recognize something that has occurred than something that no longer occurs. In some cases organizations leave records of their demise, but this is not always the case. Another limitation of the database is that it most likely favors more recent organizations versus older ones, particularly older ones that did not survive. Organizations that existed before the internet may not leave a visible footprint, making it more difficult to research them if they had not been documented before their demise took place. Another limitation is that not all of the variables collected on these organizations were readily available for all firms. This may reduce reliability by increasing systemic bias. For instance, organizations with one type of founding might be inherently more or less likely to report how they were founded.

### **Future Research**

The most urgent opportunity for future research is the identification of specific hypotheses related to this project and the application of multivariate analysis to test them. Given the data collected and the theoretical literature on these topics, this should be a realistic and achievable future research project. Consistent with that project is the ongoing maintenance of this unique and valuable database. Like others, this population is dynamic. Given its importance, there is a great deal of

interest in maintaining this kind of database. Additionally, new variables can be identified and added to the database. This could be done using information from a business services such as Hoovers.

Another important future research project is the identification and analysis of sub populations or organizations. I previously noted the large scale emergence of maritime security companies to exploit new opportunities presented by large scale piracy in heavily traveled global waterways. In this paper I have not distinguished these organizations as a new population, but it is possible that this represents a new population in a new niche. Likewise, the emergence of large scale generalist companies such as G4S, Securitas, Prosegur and Garda surely indicate something about the evolving nature of this population, and perhaps its consolidation. This is important future research as well.

Using this industry, or particular firms and relationships within it, as an empirical test of resource dependency theory (Pfeffer and Salancik, 1978) might also be a worthwhile endeavor. A deep case study analysis of individual firms might shed light on certain aspects of the industry. A comparative case study of multiple and diverse types of firms might also add granular understanding to some of the dynamics suggested in this study.

Another opportunity for study could be of the contractors themselves. Almost all of the studies I reviewed either discuss this industry at the level of organizational field, at the organizational level or at the individual single operator level. This study has helped fill in the one previously existing gap at the level of organizational population. Another study could help fill in the gap in research on contractors collectively, as a subject of study. Recruiting networks and industry organizations might make it feasible to survey this population. I have only encountered one survey of contractors, which was a small scale convenience sample of police contractors (Franke and von Boemcken 2011) and one study that conducted extensive interviews of contractors (Thumala, Goold and Loder 2011). There is not much known scientifically about contractors. There is a void in this area that should be filled with additional research.

Finally, this study noted the role of “cognitive” and “socio- political” legitimacy in evolution of the population. The Private Security Monitor at the University of Denver has established an



extensive documentation archive on governance in the private military and security industry. This data set could provide an opportunity to explore this aspect of the industry in greater detail.<sup>24</sup>

## **Conclusion**

While new organizations are founded and disbanded daily, emergence of new populations of organizations is much less frequent. It is even rarer to identify one with the importance, impact and influence of private military and security companies. In the span of essentially two decades, private military and security firms have evolved from a small niche with questionable legitimacy to a large global industry. By some estimates, this industry is now valued at more than \$200 Billion annually. Thousands of organizations employ millions of people. Few modern militaries or state security agencies can operate without them. But their biggest contribution may be in filling the gap in security on behalf of corporations, non- governmental organizations and individuals that might have no other recourse in this age of globalization, downsizing, privatization and deregulation. New challenges, such as mass piracy, provide ongoing opportunities for expansion into new ventures, such as maritime security. Coming as they have at a time of globalization, deregulation and the primacy of market relations, the dynamics of this industry are not only timely and relevant but may also be indicative of the types of organizational populations, or industries that might emerge in this context.

In this paper I have built on theoretical and empirical research utilizing a population ecology approach to organizations. Whereas previous application has been almost entirely at the local, national and occasionally regional level, I have extended this analysis to a newly emergent global industry. This research has further highlighted the complementary and interlocking approaches of population ecology, entrepreneurial opportunity identification and exploitation and institutional shaping and legitimacy in the emergence and survival of new organizational populations. Future research will continue to enhance our knowledge of this important industry as it continues to evolve, as well as new opportunities for application and testing of organizational theory.

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<sup>24</sup> This archive does not contain organizational data so is a natural complement to the work done in this project. More detail on the Private Security Monitor can be found at <http://psm.du.edu/>

## REFERENCES

- Abila Security. [www.abilasecurity.com](http://www.abilasecurity.com) (accessed May 9, 2012)
- AEGIS. [www.aegisworld.com](http://www.aegisworld.com) (accessed May 9, 2012)
- Abrahamson, Rita and Michael C. Williams. 2006. "Security sector reform: bringing the private in." *Conflict, Security & Development*. 6(1): 1-23
- Abrahamson, Rita and Michael C. Williams. 2007a. "Selling security: Assessing the impact of military privatization." *Review of International Political Economy*. 15(1): 131-146
- Abrahamson, Rita and Michael C. Williams. 2007b. "Securing the City: Private Security Companies and Non-State Authority in Global Governance." *International Relations*. 21: 237-253
- Abrahamsen, Rita and Michael C. Williams. 2009. "Security Beyond the State: Global Security Assemblages in International Politics." *International Political Sociology*. 3: 1- 17
- Aldrich, Howard. 2008. *Organizations and Environments*. Stanford, California: Stanford University Press.
- Aldrich, Howard E. and C. Marlene Fiol. 1994. "Fools Rush In? The Institutional Context of Industry Creation." *Academy of Management Review*. 19(4): 645-670.
- Adrich, Howard and Martin Ruef. 2007. *Organizations Evolving, Second Edition*. London: Sage.
- Alvarez, Sharon A. and Jay B. Barney. 2001. "How Entrepreneurial Firms Can Benefit from Alliances with Large Partners." *The Academy of Management Executive*. 15(1): 139-148
- Alvarez, Sharon A. and Jay B. Barney. 2004. "Organizing rent generation and appropriation: Toward a theory of the entrepreneurial firm." *Journal of Business Venturing*. 19:621-635/
- Alvarez, Sharon A. and Jay B Barney. 2005. "How Do Entrepreneurs Organize Firms Under Conditions of Uncertainty." *Journal of Management*. 31: 776-1063
- Alvarez, Sharon A. and Jay B Barney. 2007. "Discovery and Creation: Alternative Theories of Entrepreneurial Action." *Organizacoes em Contexto*. 3(6): 123-152.
- Ashcroft, James. 2006. *Making a Killing: The Explosive Story of a Hired Gun in Iraq: Inside the West's secret army- told from the front line*. London: Virgin Books.
- Avant, Deborah D. 2000. "From Mercenaries to Citizen Armies: Explaining the Change in the Practice of War." *International Organizations* 54: 41-72.

- Avant, Deborah D. 2005 *The Market for Force: The Consequences of Privatizing Security*. New York: Cambridge University Press.
- Avant, Deborah D. and Renee de Nevers. 2011. "Military Contractors & the American Way of War." *Daedalus: Journal of the American Academy of Arts and Sciences*. Summer: 88
- Barlow, Eeben. 2007. *Executive Outcomes: Against All Odds*. Alberton, South Africa: Galago Books.
- Baum, Joel A. C. and Jitendra V. Singh. 1994. "Localized Competition and Organizational Failure in the Manhattan Hotel Industry, 1898- 1990" *Administrative Science Quarterly*. 37:580-604.
- Baum, Joel A. C. and Christine Oliver. 1991. "Institutional Linkages and Organizational Mortality" *Administrative Science Quarterly*. 36:187-218
- Baum, Joel A. C. and Christine Oliver. 1992. "Institutional Embeddedness and the Dynamics of Organizational Populations" *American Sociological Review*. 57:540-559.
- Baum, Joel A. C. and Jitendra V. Singh. 1994. "Organizational Niches and the Dynamics of Organizational Mortality" *American Journal of Sociology*. 100:346-380.
- Bergner, Daniel. 2005. "The Other Army." *The New York Times Magazine*. (August 14)
- Berndtsson, Joakim. 2012. "Security Professionals for Hire: Exploring the Many Faces of Private Security Expertise." *Millennium – Journal of International Studies*. 40(303): 303-320
- BIMCO. "BIMCO publishes much anticipated GUARDCON Contract" [https://www.bimco.org/About/Press/Press\\_Releases/2012/2012\\_03\\_28\\_GUARDCON.aspx](https://www.bimco.org/About/Press/Press_Releases/2012/2012_03_28_GUARDCON.aspx) (Accessed March 28, 2012)
- Brauer, Jurgen and Hubert Van Tuyll. 2009 [2008]. *Castles, Battles, & Bombs: How Economics Explains Military History*. Chicago: The University of Chicago Press.
- Bruneau, Thomas C. 2011. *Patriots for Profit: Contractors and the Military in U.S. National Security*. Palo Alto, California: Stanford University Press.
- Cam, Frank and Victoria Greenfield. 2005. *How Should the Army Use Contractors on the Battlefield? Assessing Comparative Risk in Sourcing Decisions*. Santa Monica: Rand.
- Carafano, James Jay. 2008. *Private Sector, Public Wars: Contractors in Combat- Afghanistan, Iraq, and Future Conflicts*. Westport, Connecticut: Praeger Security International.
- Carmola, Kateri. 2006. "It's All Contracts Now: Private Military Firms and a Clash of Legal Culture" *The Brown Journal of World Affairs*. XIII(1): Fall/ Winter 2006.

Carmola, Kateri. 2010. *Private Security Contractors and New Wars: Risk, Law and Ethics*. New York: Routledge.

Carroll, Glenn R. 1987. *Publish and Perish: The Organizational Ecology of Newspaper Industries*. Greenwich, Connecticut: JAI Press.

Carroll, Glenn R, and Jacques Delacroix. 1982. "Organizational Mortality in the Newspaper Industries of Argentina and Ireland: An Ecological Approach," *Research in Organizational Behavior* 10:359-392, ed. Barry Staw and L. L. Cummings. Greenwich, Connecticut: JAI Press.

Carroll, Glenn R. and Michael T. Hannan. 1989a. "Density Delay in the Evolution of Organizational Populations: A Model and Five Empirical Tests." *Administrative Science Quarterly*. 34(3): 411- 430.

Carroll, Glenn R. and Michael T. Hannan. 1989b. "Density Dependence in the Evolution of Populations of Newspaper Organizations" *American Sociological Review*. 54:524-548

Carroll, Glenn R. and Anand Swaminathan. 2000. "Why the Microbrewery Movement? Organizational Dynamics of Resource Partitioning in the U.S. Brewing Industry" *American Journal of Sociology* 106:715-762.

Chatterjee, Pratap. 2009. *Halliburton's Army: How a Well Connected Texas Oil Company Revolutionized the Way that America Makes War*. New York: Nation's Books.

Coaffee, Joan. 2011. "Strategic security planning and the resilient design of Olympic sites" Chapter 7, pp 118- 131, in Anthony Richards, Pete Fussey and Andrew Silke, eds. *Terrorism and the Olympics: Major event security and lessons for the future*. New York: Routledge.

Collins, Jim. 2001. *Good to Great: Why Some Companies Make the Leap and Others Don't*. New York: Harper Business.

Collins, Jim. 2004 [1994]. *Build to Last: Successful Habits of Visionary Companies*. New York: Harper Business.

Dew, Nicholas and Bryan Hudgens. 2008. "The Evolving Private Military Sector: A Survey" Acquisition Research Program, Graduate School of Business and Public Policy. Monterey, CA: Naval Postgraduate School, February 20, 2008; available at [www.acquisitionsresearch.org](http://www.acquisitionsresearch.org)

Dickinson, Laura A. 2010. "Military Lawyers, Private Contractors and the Problem of International Law Compliance." *New York University Journal of International Law and Politics*. 42(2): 355-388.

DiMaggio, Paul J. and Walter W. Powell. 1983. "The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields." *American Sociological Review*. 48(2): 147-160

DiMaggio, Paul, ed. 2001. *The 21<sup>st</sup> Century Firm: Changing Economic Organization in International Perspective*. Princeton, New Jersey: The Princeton University Press.

Donahugh, John D. 1989. *The Privatization Decision: Public Ends, Private Means*. New York: Basic Books.

Dunigan, Martha Clarke. 2009. "Back Door Deployments?: The Impact of the Private Security Industry on the Democratic Peace and the Democratic Advantage" Paper Prepared for the Annual Meeting of The American Political Science Association. Toronto, Canada, September 5, 2009.

Dunigan, Molly. 2011. *Victory for Hire: Private Security Companies' Impact on Military Effectiveness*. Palo Alto: Stanford University Press.

Dunn, Mary B. and Candace Jones. 2010. "Institutional Logics and Institutional Pluralism: The Constestation Care and Science Logics in Medical Education, 1967-2005." *Administrative Science Quarterly*. 55: 114-149.

DynCorp. [www.dyn-intl.com](http://www.dyn-intl.com) (Accessed May 10, 2012)

Engbrecht, Shawn. 2011. *America's Covert Warriors: Inside the World of Private Military Contractors*. Washington, D.C.: Potomac Books, Inc.

Fainaru, Steve. 2008. *Big Boy Rules: America's Mercenaries Fighting in Iraq*. New York: Da Capo.

Franke, Volker and Marc von Boemcken. 2011. "Guns for Hire: Motivations and Attitudes of Private Security Contractors." *Armed Forces & Society*. 37(3): 381-398

Fredland, Eric. 2004. "Outsourcing Military Force: A Transaction Cost Perspective on the Role of Military Companies." *Defense and Peace Economics*. 15(3): 441- 473.

Fisher Jacquette, Rogene. September 23, 2010. "Contractor Deaths in Iraq and Afghanistan Outnumber Service Member Deaths." *The New York Times*.

Fredland, Eric. 2004. "Outsourcing Military Force: A Transaction Cost Perspective on the Role of Military Companies." *Defense and Peace Economics*. 15(3): 205- 219.

Freeman, John H. 1990. "Ecological Analysis of Semi-conductor Firm Mortality" in *Organizational Evolution: New Directions*, 53-77, Ed. Jitendra V. Singh. Newbury Park, California: Sage.

G4S. [www.g4s.com](http://www.g4s.com) (Accessed May 10, 2012)

Gammeltoft-Hansen, Thomas. April 2, 2012. "Can Privatization Kill?" *The New York Times*.

Garda World. [www.garda-world.com](http://www.garda-world.com) (Accessed May 10, 2012)

Geddes, John. 2008. *Highway to Hell: Dispatches from a Mercenary in Iraq*. Broadway: New York.

Geraghty, Tony. 2009. *Soldiers of Fortune: A History of the Mercenary in Modern Warfare*. New York: Pegasus Books.

Graham, Stephen. 2012. "Olympics 2012 security: welcome to lockdown London." *The Guardian (London)* (March 12). <http://www.guardian.co.uk/sport/2012/mar/12/london-olympics-security-lockdown-london?newsfeed=true>

Greider, William. 1997. *One World, Ready or Not: The Manic Logic of Global Capitalism*. Simon & Schuster: New York.

Gul, Saad. 2006. "The Secretary will deny all knowledge of your actions: The use of private military contractors and the implications for state and political accountability." *Lewis and Clark Law Review*. 10(2): 287-312.

Halliburton. [www.halliburton.com](http://www.halliburton.com) (Accessed May 10, 2012)

Hannan, Michael T., Glenn R. Carroll, Elizabeth A. Dundon and John Charles Torres. 1995. "Organizational Evolution in a Multinational Context: Entries of Automobile Manufacturers in Belgium, Britain, France, Germany, and Italy," *American Sociological Review*. 60:509-528.

Hannan, Michael T. and John Freeman. 1977. "The Population Ecology of Organizations." *The American Journal of Sociology*. 82(5):929-964.

Hannan, Michael T. and John Freeman. 1984. "Structural Inertia and Organizational Change." *American Sociological Review*. 49(2):149-164.

Hannan, Michael T. and John Freeman. 1986. "Where do Organizational Forms Come From?" *Sociological Forum*. 1(1):50-72

Hannan, Michael T. and John Freeman. 1987. "The Ecology of Organizational Founding: American Labor Unions, 1836-1985" *American Journal of Sociology* 92:910-943.

Hannan, Michael T. and John Freeman. 1989a. "Density Dependence of Populations of Newspaper Organizations." *American Sociological Review*. 54(4): 534-541

Hannan, Michael T. and John Freeman. 1989b. *Organizational Ecology*. Cambridge Massachusetts: Harvard University Press.

Harper, David. 2003. *Foundations of Entrepreneurship and Economic Development*. New York: Routledge.

Haveman, Heather A. and Hayagreeva Rao. 1997. "Structuring a Theory of Moral Sentiments: Institutional and Organizational Coevolution in the Early Thrift Industry." *The American Journal of Sociology*. Vol, 102, No. 6: 1606-1651.

Hernandez, Katherine Marie G. 2010. *'Pirates' in the Sea: Private Military and Security Company Activities in Southeast Asia and the Philippines Case*. Working Papers Series, no. 9. October. Santiago, Chile: The Global Consortium on Security Transformation (GCST).

Hiatt, Shon R., Wesley D. Sine and Pamela S. Tolbert. 2009. "From Pabst to Pepsi: The Deinstitutionalization of Social Practices and the Creation of Entrepreneurial Activities." *Administrative Science Quarterly*. 54:635-667

Higate, Paul. 2012. "Cowboys and Professionals': The Politics of Identity Work in the Private Military Security Company." *Millennium – Journal of International Studies*. 40: 321-

International Code of Conduct (ICoC) for Private Security Service Providers <http://www.icoc-psp.org/> (Accessed May 10, 2012)

Isenberg, David. 2009. *Shadow Force: Private Security Contractors in Iraq*. Westport, Connecticut: Praeger Security International.

Isenberg, David, 2009. *Private Military Contractors and U.S. Grand Strategy*. Oslo: PRIO.

Joachim, Jutta and Andrea Schneiker. 2012. "New Humanitarians? Fram Appropriation through Private Military and Security Companies." *Millennium – Journal of International Studies*. 40: 365-388.

Johnson, Victoria. 2006. What is Organizational Imprinting? Cultural Entrepreneurship in the Founding of the Paris Opera."

Kalleberg, Arne L., 2009. "Precarious Work, Insecure Workers: Employment Relations in Transition." *American Sociological Review*. Vol. 74:1-22.

KBR. [www.kbr.com](http://www.kbr.com) (Accessed May 10, 2012)

Kelty, Ryan and Darcy Schnack. 2008. *Attitudes on the Ground: What Soldiers Think About Civilian Contractors*. Annual Meeting of the International Studies Association.

Kelty, Ryan and David R. Segal. 2007. "The Civilianization of the US Military: Army and Navy Case Studies of the Effects of Civilian Integration on Military Personnel" Chapter 2, pp 213- 239 in Thomas Jaeger and Gerhard Kummel, eds. *Private Military and Security Companies: Chances, Problems, Pitfalls and Prospects*. Weisbaden, Germany: GWV Fachverlage GMBH.

Kinsey, Christopher. 2006. *Corporate Soldiers and International Security: The Rise of Private Military Companies*. New York: Routledge.

Kirzner, Israel M. 1997. "Entrepreneurial Discovery and the Competitive Market Process: An Austrian Approach." *Journal of Economic Literature*. 35(1):60-85

Kobrin, Stephen J. 1997. "The Architecture of Globalization: State Sovereignty in a Networked Global Economy." Pp 146-172, in *Governments, Globalization, and International Business*, edited by J. H. Dunning. Oxford: Oxford University Press.

Leander, Anna. 2005a. "The Power to Construct International Security: On the Significance of Private Military Companies." *Millenium – Journal of International Studies*. 33: 803-826

Leander, Anna. 2005b. "The Market for Force and Public Security: The Destabilizing Consequences of Private Military Companies." *Journal of Peace Research*. 42(5): 605-622.

Lippman, Stephen. 2005. "Public Airwaves, Private Interests: Competing Visions and Ideological Capture in the Regulation of U.S. Broadcasting, 1920-34." Pp 109-148 in *Research in Political Sociology*, edited by Harland Prechel. (14):

Lippman, Stephen. 2007. "The Institutional Context of Industry Consolidation: Radio Broadcasting in the United States: 1920-1934." *Social Forces*, 86, 2: 467-495.

Lune, Howard. 2010. *Understanding Organizations*. Malden, Massachusetts: Polity Press.

Machiavelli, Niccolo. 1994. *The Prince*. New York: Barnes & Noble Books.

Mandel, Robert. 2002. *Armies without States: The Privatization of Security*. Boulder: Lynne Rienner.

McCoy, Katherine. 2009. "Uncle Sam Wants Them." *Contexts*. 8(1): 14-19.

McCoy, Katherine E. 2010. "Beyond Civil-Military Relations: Reflections on Civilian Control of a Private, Multinational Workforce" *Armed Forces & Society*. 36(4): 671-694.

McCoy, Katherine E. 2012. "Organizational Frames for Professional Claims: Private Military Corporations and the Rose of the Military Paraprofessional." *Social Problems*. Volume 59, Number 3. (August), Pages 322-340.

Meyer, John W. and Brian Rowan. 1977. "Institutionalized Organizations: Formal Structure as Myth and Ceremony." *The American Journal of Sociology*. 83(2): 340-363.

Miller, T. Christian. September 23, 2010. "This Year, Contractor Deaths Exceed Military Ones in Iraq and Afghanistan." *ProPublica*



Norland, Rod. February 11, 2012. "Risks of Afghan War Shift From Soldiers to Contractors" *The New York Times*. <http://www.nytimes.com/2012/02/12/world/asia/afghan-war-risks-are-shifting-to-contractors.html?emc=eta1>

O'Reilly, Conor. 2011. "'From Kidnap to Contagious Diseases': Elite Rescue and the Strategic Expansion of the Transnational Security Consultancy Industry" *International Political Sociology*. 5: 178- 197.

Ortiz, Carlos. [www.PrivateMilitary.org](http://www.PrivateMilitary.org) (Accessed May 10, 2012)

Ortiz, Carlos. 2010. *Private Armed Forces and Global Security: A Guide to the Issues*. Santa Barbara, California: Praeger.

Pelton, Robert Young. 2006. *Licensed to Kill: Hired Guns in the War on Terror*. New York: Crown Publishers.

Pfeffer, Jeffrey and Gerald R. Salancik. 1978. *The External Control of Organizations: A Resource Dependence Perspective*. Stanford, California: Stanford University Press.

Pingot, Lou. 2012. *Dangerous Partnership: Private Security and the United Nations*. New York: Global Policy Forum.

Podolny, Joel M., Toby E, Stewart and Michael T, Hannan, 1996. "Networks, Knowledge, and Niches: Competition in the Worldwide Semiconductor Industry" *American Journal of Sociology*. 102(3):659-689.

Powell, Walter W. and Paul DiMaggio, eds. 1991. *The New Institutionalism in Organizational Analysis*. Chicago: University of Chicago Press.

Private Security Monitor at the University of Denver <http://psm.du.edu/> (Accessed October 10, 2012)

ProPublica. *Disposable Army: Civilian Contractors in Iraq and Afghanistan*.

Prosecur. [www.prosecur.com](http://www.prosecur.com) (Accessed September 30, 2012)

Rao, Hayagreeva. 1998. "Caveat Emptor: The Construction of Nonprofit Consumer Watchdog Organizations." *American Journal of Sociology*. 104. 4: 912-61.

Rubin, Alissa. 2010. "Afghanistan Softens Ban on Private Security Firms" *The New York Times*. (December 6)

Scahill, Jeremy. 2008 [2007]. *Blackwater: The Rise of the World's Most Powerful Mercenary Army (Fully Revised and Updated)*. New York: Nations Books.

Schooner, Steven L. and Colin D. Swan, September 2010. "Contractors and the Ultimate Sacrifice." Pp16-18. *Service Contractor* (Professional Services Council).

Schooner, Steven L. and Collin D. Swan. 2012 Forthcoming. "Dead Contractors: The Un-Examined Effect of Surrogates on the Public's Casualty Sensitivity" *Journal of National Security Law & Policy*, 2011, *GWU Law School Public Law Research Paper No. 555*, *GWU Legal Studies Research Paper No. 555* <http://ssrn.com/abstract=1826242>

Schumacher, Gerald. 2006. *A Bloody Business: America's War Zone Contractors and the Occupation of Iraq*. St Paul, Minnesota: Zenith Press.

Scott, W. Richard. 1981. *Organizations: Rational, Natural and Open Systems*. Englewood Cliffs: Prentice Hall.

Scott, W. Richard and Gerald F. Davis. 2007. *Organizations and Organizing: Rational, Natural and Open System Perspectives*. Upper Saddle River New Jersey: Pearson Prentice Hall

Securitas. [www.securitas.com](http://www.securitas.com) (Accessed May 10, 2012)

Security Association of the Maritime Industry, The (SAMI) [www.seasecurity.org](http://www.seasecurity.org) (Accessed May 10, 2012)

Shane, Scott. 2000. "Prior Knowledge and the Discovery of Entrepreneurial Opportunity." *Organizational Science*. 11(4):448-469.

Shanker, Thom. 2012. "U.S. Reports that Piracy Off Africa Has Plunged" *The New York Times*. August 28. (Accessed September 29, 2012)

Shearer, David. 1998. *Private Armies and Military Intervention: Adelphi Paper 316*. New York: Oxford University Press.

Simons, Suzanne. 2009. *Master of War: Blackwater USA's Erik Prince and the Business of War*. New York: Harper Collins.

Singer, P.W. 2003. *Corporate Warriors: The Rise of the Privatized Military Industry*. Ithaca: Cornell University Press.

Spicer, Tim. 1999. *An Unorthodox Soldier*. Edinburgh: Mainsteam Publishing Company Ltd.

Stanger, Allison. 2009. *One Nation Under Contract: The Outsourcing of American Power and the Future of Foreign Policy*. New Haven: Yale.

Swidler, Ann. 1986. "Culture in Action: Symbols and Strategies," *American Sociological Review*. 51: 282

March, James and Johan P. Olsen. 1998. "The Institutional Dynamics of International Political Orders." *International Organizations*. 52: 4

Thumala, Agelica, Benjamin Goold and Ian Loader. 2001. "A tainted trade? Moral ambivalence and legitimization work in the private security industry." *The British Journal of Sociology*. 62(2):283-303.

Tilly, Charles. 1985. "War Making and State Making as Organized Crime." Pp. 169-187 in *Bringing the State Back In* edited by P. Evans, D. Rueschemeyer, and T. Skocpol. Cambridge: Cambridge University Press.

Tilly, Charles. 2001. "Welcome to the Seventeenth Century" Pp 200- 209 in P. DiMaggio, Ed. *The Twenty-First Century Form: Changing Economic Organization in International Perspective*. Princeton: Princeton University Press.

Tran, Pierre. 2012. "Regulation, Expansion of French Private Security Firms Urged." *Defense News*. February 2.

U.S. Congress Committee on Oversight and Government Reform. October 1, 2007. "Additional Information About Blackwater USA." United States House of Representatives.

U.S. Department of Defense Office of the Undersecretary of Defense for Program Support "CENTCOM Quarterly Contractor Census Reports: Past Contractor Support of U.S. Operations in USCENTCOM AOR, Iraq, and Afghanistan (5A Papers)" Reviewed on February 12, 2012. [http://www.acq.osd.mil/log/PS/CENTCOM\\_reports.html](http://www.acq.osd.mil/log/PS/CENTCOM_reports.html)

U.S. Department of Labor Office of Workers' Compensation Programs (OWCP) Division of Longshore and Harbor Workers' Compensation (DLHWC) Defense Base Act <http://www.dol.gov/owcp/dlhwc/dbaallnation12-31-10.htm>

Venter, Al J. 2006. *War Dog: Fighting Other People's Wars: The Modern Mercenary in Combat*. Philadelphia: Casemate.

Venter, Al J. 2011. *Gunship Ace: The Wars of Neall Ellis, Helicopter Pilot and Mercenary*. Philadelphia: Casemate.

Verkuil, Paul R. 2007. *Outsourcing Sovereignty: Why Privatization of Government Functions Threatens Democracy and What We Can Do About it*. New York: Cambridge University Press.

Walker, Edward. 2009. "Privatizing Participation: Civic Change and the Organizational Dynamics of Grassroots Lobbying Firms." *American Sociological Review*. 74(1):83-105.

Weber, Max. 1958. *From Max Weber: Essays in Sociology*. New York: Oxford University Press.

Weber, Max. 2002. *The Protestant Ethic and the "Spirit" of Capitalism*. New York: Penguin Classics.

Williamson, Oliver. 1975. *Markets and Hierarchies: Analysis and Antitrust Implications*. New York: The Free Press.

Williamson, Oliver. 1985. *The Economic Institutions of Capitalism*. New York: Free Press.

Williamson, Oliver. 1999. "Public and Private Bureaucracies: A Transaction Cost Economics Perspective." *Journal of Law, Economics and Organization*. 15(1): 306- 342.