

Master Thesis
Crisis and Security Management



STRONGER TOGETHER?

*A Study into the Perceived Effectiveness of Private Actors in
Emergency Management Networks of the United States*

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24-01-2018

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Study: *Master Crisis and Security Management 2017-2018*

Institute: *Security and Global Affairs*

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University: *Leiden University*

Date: January 2018

Word count: 22869

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INTRODUCTION:

Emergency and disaster management has long been a traditional task of the government. However, it is not only the government who can work to provide relief efforts in times of crisis and emergency. Slowly the realm of crisis management has transformed into an effort in which the private sector contributes as well. This study examines the factors that determine the perceived effectiveness of private actors in emergency management networks. That the private sector is able to play an important role is illustrated by the following example.

On August 29, 2005, Hurricane Katrina made landfall in the southeastern part of the United States of America. In particular, the states of Louisiana and Mississippi were profoundly damaged by the tropical cyclone. (Rushton, 2015). Perhaps most notably, the city of New Orleans was severely hit by the cyclone (Nowakowski, 2015; Plyer, 2016). The city was critically damaged because engineers mistakenly believed the city would be spared and would not be in the path of Katrina. While more than 1.2 million people had been evacuated, over 40.000 people were eventually trapped in the city when the storm made landfall. This caused numerous problems as a combination of scarcity of potable water, food, basic sanitation and temperatures over 30°C led to a public health emergency (Manuel, 2006). Seven hundred thousand people were eventually displaced and over 1500 lost their lives (Binu, Mawson, Payton, & Guignard, 2008). While the government was attempting to provide help where needed, the situation was so severe and grievous that the government alone was not able to provide the relief efforts the city of New Orleans and other stricken areas greatly needed at that moment. The Federal Emergency Management Agency (FEMA)¹, and the government of the United States, failed to coordinate their relief efforts, which impeded the relief effort (Koliba, Mills, & Zia, 2011).

At the same time, Wal-Mart, one of the country's largest supermarkets chains made a decision to intervene and help. Walmart's Chief Executive H. Lee Scott Jr. called for a meeting and pledged to help those struck by Katrina: *"I want us to respond in a way appropriate to our size and the impact we can have"*. At a time when the state and federal offices were under harsh criticism because of their lack of an adequate response, Wal-Mart already had their trucks loaded and ready before Katrina made landfall. This has made Wal-Mart as a model of disaster planning and logistical efficiency for the private sector. Scott Jr. stated that Wal-Mart 'can't do

¹ Under the Homeland Security Act of 2002, the FEMA became a part of the Department of Homeland Security (DHS) (H.R. 5005 – 107th Congress, 2002). Therefore, instead of FEMA sometimes the DHS will be referred to, as some decisions are taken at the DHS level.

any more than our own part. We are not the federal government'. Nevertheless, Wal-Mart was ready to provide relief efforts before FEMA or the American government was able to (Barbaro & Gillis, 2005).

Relevance:

Private actors, which are companies such as Wal-Mart, non-governmental organizations (NGO's), or even private persons, are able to contribute to crisis- and emergency management and their coterminous networks (Boin & McConnell, 2007). It is important to research the contribution of private actors within emergency management networks for several reasons, to be explained hereafter. There are several academic reasons for this research. The academic world can no longer ignore the changing dynamics within emergency or disaster management, mostly due to the trend of privatization. The end of the Cold War resulted in a number of changes that account for the rise of privatization within crisis and security management. Specifically, political changes left a void in security to be filled up by the private market. Moreover, government policy and an increase in marketization explain the rise of privatization and the expansion of new actors in the field. (Mandell, 2001; Cheung, 2007).

While the aforementioned phenomenon has been sufficiently researched, there is a lack of research into the field of the effectiveness of the involvement of the private sector within emergency or disaster management. The private sector's role within emergency management is growing rapidly, but several scholars question the assets and/or benefits of the private sector. For example, Crenson and Ginsberg argue that privatization is nothing more than a process of 'downsizing democracy', while others argue that it increases government spending because of increasing oversight and management (Fox Gotham, 2012). These different viewpoints and arguments make a compelling case for research into the effectiveness of the private sector within emergency management.

In like manner, there is a high practical relevance for a research of such kind. The last few decades have seen the rise of several (new) threats, such as climate change, (ideological) terrorism and cyber threats: also called hybrid threats. These threats challenge the existing system of crisis, security and emergency management (Bachmann, 2011). Moreover, the increasing cooperation between the public and private sector, whether through public-private partnerships, security networks or other means calls for a research into the (perceived) effectiveness of such networks, as they are rapidly changing (Farazmand, 2007: 152) Such a research will benefit both the public and private sector. As Waugh Jr. and Streib (2006: 131) put it: *'Collaboration is a necessary foundation for dealing with both natural and technological*

hazards and disasters and the consequences of terrorism’.

Related to that, there is a strong call for the private sector to take its responsibility. According to Binder and Witte (2007) there is a shift in how the private sector takes on humanitarian relief efforts. According to the authors, developments have prepared the world of emergency management for a more direct and extensive business engagement. Private actors are more attracted to the profits that can be made in this new market, aside from e.g. brand image, corporate social responsibility and staff motivation (Balcik et al., 2009: 27). Moreover, as has been previously stated ‘*private firms possess the business management expertise and tools governments increasingly demand*’ (Binder & Witte, 2007: 25).

Nevertheless, and most importantly, there has been little research into the evaluation of these networks or partnerships, which makes such a research long overdue (Binder & Witte, 2007: 26). Especially in the United States, which is known for its liberal economy, small government and where privatization and public-private partnerships have been existent for a long time, privatization of emergency network is an interesting topic to explore.

Research Question:

In line with the aforementioned reasons, this thesis will focus on the perceived effectiveness of the private sector within emergency management. The aim of the research is to give an answer to which factors contribute to the perceived effectiveness of private actors within emergency or disaster management networks. The following question will stand central in this thesis:

“What factors determine the perceived effectiveness of private actors in emergency management networks as seen from the government?”

For this research, the United States has been chosen as the focus country. Three cases will be analyzed in order of chronology: Hurricane Katrina in 2005, the 2011 Joplin, MO, Tornado, and Hurricane Sandy in 2012. Their perceived effectiveness and several determining factors will be critically examined. Through document analysis, reliable data from government reports and academic articles will be used to determine factors that lead to perceived effectiveness.

Readers Guide:

This thesis is divided into four chapters. First, an overview will be given of the existing literature on perceived effectiveness within emergency and security networks in the first chapter, particularly focusing on private actors. Next to this, the theory will be outlined that will create a framework for analyzing the aforementioned three case studies. Moreover, this chapter will introduce the factors that determine perceived effectiveness. The second chapter will outline the methodology and methods used in this research. Next to that, the choice for the

selected case studies will be explained. Furthermore, it will expand on the data collection and data analysis, and will define and operationalize the concepts used in this study. Moreover, it will introduce the expectations of the outcome of the research. This chapter will end with a critical assessment of the validity and limitations of the research. Thirdly, the most extensive chapter, chapter 4, will feature the three case studies, which will be analyzed using the theory laid out in the first chapter. Lastly, the fourth chapter will conclude the research. An overview of the found data and results will be given, and the main research question will be answered.

Chapter 1: THEORY

This chapter will outline the existing literature on perceived effectiveness within security- and emergency management networks. First, an introduction to the subject of emergency management networks and perceived effectiveness will be given, accompanied by a literature review of the existing literature, focusing on the (perceived) effectiveness of these networks. Next, this chapter will develop a conceptual framework, exploring the subject of perceived effectiveness. Subsequently, contributing factors relating to perceived effectiveness will be incorporated too. Based on the information presented in this chapter, the challenges of defining and researching (perceived) effectiveness will be clear.

Literature Review:

This section will delve into the literature that exists on the use of security networks, emergency management networks and the perceived effectiveness of these.

From the work of several different authors it follows that the use of security networks cannot be ignored and that they are more prevalently used to tackle problems in our society (Whelan 2015; Krahmman 2010). Whether those are ‘wicked problems’, ‘challenges that cannot be handled by dividing them up into simple pieces in near isolation from each other’ (O’Toole, 1997), or the realization of common goals or even own goals (Whelan, 2015): security networks are used increasingly. The rise of security networks makes an interesting case to look into emergency networks. This is because they are part of the broad category of security networks, and little research has been done into the effectiveness of these networks. This chapter does not seek to explain the rise of security networks; their relevance or their supposed effectiveness compared to other forms of collaboration.

However, it is a fact that security networks are used increasingly, also in emergency management. It goes as far that some scholars argue that our society is developing into ‘a society of networks’ (Raab & Kenis, 2009).

Despite this significant development, an agreed definition of networks, or security networks, has not yet been developed in academic literature. In the broadest sense of the word, a network is ‘a set of actors (or ‘nodes’) that are linked by various relationships (or ‘ties’)’. In this definition, actors can range from organizations, individuals or units within organizations. The same goes for relationships; they can be relationships between individuals, functional relationships between units within an organization or even strategic relationships between organizations (Whelan, 2012). Emergency management networks are networks that engage

when an emergency or disaster has occurred. They consist of public actors, private actors and non-profit actors. According to Garayev (2011), the use of formal and informal networks in emergency management is new and therefore little research and knowledge is present at this moment. Therefore, there is limited resources available on the topic of perceived effectiveness.

This thesis will follow this line of thought, as this is considered less inhibiting in defining and studying networks, and therefore makes the analysis of emergency management networks more valid and manageable.

As Whelan argues, it remains that there is insufficient knowledge about security networks (Whelan, 2015). Also brought forward by Herranz, ‘scholarly guidance’ within network management is still very much lacking (Herranz Jr., 2008), especially in networks that encompass nonprofit and for-profit entities (Bozeman & Bretschneider, 1994). Moreover, as argued by Ansell, Boin and Keller (2010), crises and emergencies become harder to tackle, as they develop across different geographical and policy borders. According to Ansell, Boin and Keller, successful response to a crisis and disaster is characterized by ‘rapid support, participation and cooperation from mission-critical stakeholders’.

They have identified two schools of thought within emergency response and/or coordination. First, mainly used within the United States is the Incident Command System, which is based on authority structures. Secondly, the authors mention a system in which is argued that ‘complex response systems’ cannot be coordinated in a top-down fashion, and a self-organizing system is thought to be more effective. While the first school of thought is found in the United States, and has shown mixed results, the second school of thought is found within the European Union, where it has become a legitimate platform for crisis coordination (Ansell, Boin, & Keller, 2010). It is peculiar that what defines (perceived) effectiveness in these schools is not discussed. However, several scholars have tried to do so.

According to Provan and Milward, evaluating (perceived) network effectiveness is vital for the understanding of networks and their organization, considering effectiveness (Provan & Milward, 2001). Moreover, as follows from the literature, understanding the functioning of networks is necessary to understand why they develop certain outcomes, irrespective if they follow a top-down or bottom-up approach (Provan & Kenis, 2007). Therefore, the next section will delve more into the perceived effectiveness within networks.

Perceived Effectiveness:

As seen in the preceding section, and follows from the literature, some authors choose not to define perceived effectiveness (Georgopoulos & Tannenbaum, 1957). As Cameron (1982) puts

it, “*consensus regarding the best, or sufficient, set of indicators² of (perceived) effectiveness is impossible to obtain. Criteria are based on the values and preferences of individuals, and no specifiable construct boundaries exist*”. This means that those criteria that determine perceived effectiveness are ‘mental abstractions used by individuals to interpret their own reality’. Therefore, effectiveness, or the judgement thereof, are most often based on values and preferences that one holds for an organization, or in this case, private actors. Previous research has illustrated that a unique set of preferences does not exist (Whetten, 1978; Rohrbaugh, 1981). Moreover, perceptions and values are prone to change (Miles & Cameron, 1982). As follows from the literature, (perceived) effectiveness is a problem-driven construct instead of a theory-driven construct. Since no fixed set of criteria of model exists, the substantial challenge when examining perceived effectiveness is to work out the applicable and correct set of criteria. (Cameron, 1982). Gray (2000) identifies three levels of perceived effectiveness: (1) achieving goals of service delivery, (2) improved interorganizational learning, and (3) increased partner interactions. While the second and third levels are community-based and therefore not relevant to this research, the first level is more task-oriented, is more aligned with interorganizational partnerships, and fits better in the realm of emergency networks than the remaining two (Chen, 2010).

Despite the foregoing, several issues arise when addressing security networks and when evaluating those networks in their perceived effectiveness. First, as Provan and Milward (2001) state, there is very little academic work addressing the perceived effectiveness of security networks, or emergency management networks. The prevailing point of view has been that cooperation is always more effective, drawing from the perspective of game theory, in which cooperation always leads to better outcomes than competition. According to the authors, this is particularly prevalent in those sectors in which profit does not play a large role, such as the health and human service industry. Furthermore, network effectiveness is mostly based on the satisfaction of its stakeholders, of which most are customers. These customers can be the public, but also the government or any other private actor. The authors state that a satisfied customer (public) will lead to other satisfied customers too (such as the government or any other private or public organization). This process will then render the network ‘perceived as effective’, as the customer and/or stakeholders are satisfied. While this may seem logical and attractive, it is very remote from naming a network perceived as effective. Particularly in

² While Cameron (1982) mentions ‘indicators’ for perceived effectiveness, this thesis will refer to them as criteria, to avoid confusion with the indicators for the factors trust, perception and values, and mandate.

emergency management, while the public is the biggest concern, they are most definitely not the only ones that need to be satisfied. As follows from the classification of FEMA below, there are different kinds of community stakeholders within emergency management: (Lindell, Prater, & Perry, 2006)

- 1) Firstly, they define social groups. This group can be defined as households and citizens. They are the prime target of emergency management, and are considered the largest group. Moreover, this group entails religious organizations, NGO's and community based organizations (CBO's). They play a large role in emergency management due to their large number and supposed vulnerability.
- 2) Next, FEMA defines economic stakeholders, which are primarily businesses and corporations. Their influence of daily life and effects on daily life are very important, and are therefore considered fundamental in emergency management. This category also entails the media.
- 3) Lastly, they define political groups. These are governmental stakeholders, such as local governments (mayors, municipalities) but also more regional and national governments. Each different level has different capacities and resources, and this varies by country and/or state.

Returning to security networks, all these different stakeholders make it a very complex task to evaluate such networks, especially related to their perceived effectiveness. The complexity mostly results from the fact that different stakeholders consider different outcomes to be perceived as 'effective' or 'efficient'. The difference between these two terms will be laid out later on in this thesis.

This thesis will focus on private actors, which fall in the second category: Private actors encompass in general all that do not belong to the public sector, the government. This is a sphere that is subjected to the regulations of the public sector, but can exercise influence on those regulations, according to Knill and Lehmkuhl (2002). This private sector includes everything from non-profit organizations, NGO's, corporations, multinational firms to private, individual persons, formal or informal. This thesis will focus on (multinational) firms and corporations to limit the scope of the research (Cata Backer, 2011). However, this will be researched from the perspective of the government, the third category.

Despite this classification, one cannot yet give any indication on how to research and/or analyze perceived effectiveness. Borgatti and Foster (2003) suggest that network analysis is the right perspective to look at (perceived) network effectiveness. According to Provan and

Milward (2001), one can evaluate network effectiveness at three levels of analysis: 1) The community level, 2) the network level and 3) the network's organizational participants.

For this thesis, we will take a closer look at the third category, network's organizational participants, focusing particularly on those who fall in the category private actors. Provan and Milward (2001) stress that those participating in a network are, at least partially, motivated by self-interest. To which extent this is representative for an emergency management network is debatable. However, it is safe to say that self-interest cannot be ruled out as one of the factors for joining such a network. This is more of a factor in market cooperation as identified by Kapucu, Arslan and Lloyd Collins (2010). Therefore, self-interest and/or self-benefit will not be considered factors for measuring perceived effectiveness. Nevertheless, it will be considered when analyzing the different cases, as it remains a big part of (perceived) effectiveness.

This section has delved into the relevant existing literature on (network) perceived effectiveness and has shown that there are multiple ways of looking at the subject.

Conceptual Framework:

This section will develop a theoretical framework that will be used to analyze the three cases in the remainder of this thesis. First, an outline will be given of perceived effectiveness, and subsequently, three factors (trust, perceptions and values, and mandate) will be discussed.

Perceived Effectiveness:

Security and crises are becoming pluralized, as one can see by the various types of actors, apart from the state, that try and do provide security for those who seek it. For example, it has been established that private actors, such as firms, NGOs or non-profit organizations can help overcome market and institutional failure. This thesis will not delve into the rise and terminology of privatization, but will address it briefly. Especially since out of the concept of privatization the term responsabilization came into being, which describes the trend that private persons, private actors and the private sector take responsibility for their own security and safety (Caparini, 2006). This responsabilization trend, as described by Caparini (2006), suggests that there is an 'increased acceptance and legitimization' of security provision by non-state state and other private actors. Notably in the United States, the government played a large role in creating such an environment, as they privatized former government functions. Moreover, the government has recognized the expertise and knowledge of the private sector, often in public-private partnerships (Caparini, 2006). According to Rudner (2009), private actors are increasingly being asked to cooperate with state authorities to develop plans or coordination for disasters, with a special focus on critical infrastructure. Therefore, the perceived effectiveness

of private actors is of great significance to the functioning of security and/or emergency networks. Other studies into the perceived effectiveness within governments have been carried out, but not with a focus on the private actor (Abdelsalam et al., 2011; Reddick, 2009).

Lastly, but most importantly, partnership in emergency management is a ‘vital element’. Main partners for emergency managers as identified by Patton (2007) and Kapucu, Arslan and Zamucu (2010) are public, private, and nonprofit sectors, media, and citizens/communities. These partnerships, or networks, do not need to be horizontal, but are also vertical.

To that end, it is important to note that success of network members leads to the perception of effective (emergency management) networks. Thereafter, Provan and Milward (2001) identify four factors that mark the importance of network involvement. Only two of these will be used in this thesis, as the remaining two (costs and resource acquisition) are not found to be relevant for the analysis of effectiveness in emergency management. Partly because costs and resource acquisition are of secondary importance within emergency management and partly because it is beyond the scope of this thesis to evaluate the costs of joining an emergency management network. Moreover, cost is a factor that can be attributed to the government in the case of an emergency management network, as it closely aligns with mitigation (Henstra & McBean, 2005). The other factors that Provan and Milward (2001) identify are legitimacy and client outcomes. According to the authors, actors join a network to enhance their legitimacy in the community and to acquire resources. These resources can be money, but also public opinion and reputation. This legitimacy is important, as it serves as justification for joining the network and for their actions in general. Client outcomes are those outcomes that an actor intends to achieve. For most of the actors joining, a network means achieving or gaining results that would have been impossible otherwise. Moreover, the likelihood of efficiency and effectiveness increases when joining a network. However, these factors do not shape perceived effectiveness but are intended outcomes of effectiveness. It is important to note the difference between perceived effectiveness and effectiveness related to outcomes or tangible results. Therefore, the focus will lie on different factors.

Several scholars have tried to identify the criteria for (perceived) effectiveness, whether in organizations or elsewhere (Herman & Renz, 1999). As follows from the literature, the criteria or factors need to have at least three elements: multidimensional, integrated, and at least partially socially constructed. Only when the criteria meet these requirements, they will be the most effective, for both scholars and practitioners (Sowa et al, 2004).

Regarding perceived effectiveness, it is important to note that scholars have agreed on

a few points. These are firstly that a definition of effectiveness or determining effectiveness is highly subjective, and means that ‘an agreement about effectiveness is mainly agreement to disagree’ (Cameron, 1986). Furthermore, as Cameron points out: “Consensus regarding the best, or sufficient, set of indicators of effectiveness is impossible to obtain. Criteria are based on the values and preferences of individuals, and no specifiable construct boundaries exist.” Furthermore, Kenis and Provan (2009) argue that the normative character of (the measuring of) effectiveness makes that its definition or determination can always be contested, as its definition lies not in facts, but in values attached to a certain situation or subject. Therefore, the study of defining and determination of effectiveness is troublesome at several levels.

Several scholars have tried to identify a set of criteria such as Kushner and Poole (1996), who argue that the criteria are cumulative instead of linear, independent factors. Their combination of constituent satisfaction, resource acquisition, internal processes and goal attainment has been criticized by man. This also proves how complex and difficult the process of identifying factors of perceived effectiveness is (Herman & Renz, 1999). Kenis and Provan do give some examples of criteria of perceived effectiveness, such as ‘improved integration of critical services to vulnerable populations’, or “improved regional development”. However, these criteria are not sufficient to assist in determining perceived effectiveness in a public-private partnership, as they are too vague and too broad.

Fortunately, Mandell and Keast (2008) provide four factors that they deem important relating to effectiveness within networks: The building of trust and reciprocity, the importance of perceptions, values and attitudes; issues for power and control; the need to view issues from a perspective of the whole and the need for the legitimacy of the network. Together with the two points that have been identified from Provan and Milward – client outcomes and legitimacy -, a definition of perceived effectiveness can be derived. However, as Mandell and Keast (2008: 725) stress: *“These issues taken as a whole re-enforce the point that at whatever level of operation or stage of development a network is functioning, it is based on the relationships. That is, it are the relationships that give a network its strength, its capacity to work collectively. Accordingly, network evaluation attention should be directed at the processes by which relationships are forged, organized and sustained”*. This stresses again that the functioning of a network is based on relationships between the actors, and thus its perceived effectiveness. Those factors that do influence perceived effectiveness, as follows from the literature are trust, perception, values, and mandate.

Perceived effectiveness is in short the phenomenon that an actor, entity or organization regards, deems or sees another actor, entity or organization as effective. This means that there

is no need for actual effectiveness. There is no evaluation of the actual outcomes, whether an organization is actually performing their duties. It is all about the measurement of the perception of one actor, entity, or organization towards another actor, entity or organization. It still holds true that there is a relation between the deliveries of the stated goals. For example, in emergency management, there should still be some form of result. Nevertheless, the bottom-line here is that these results do not need to be effective per se; they need to be regarded as such. This is also the most important aspect of this thesis. Actual results do not matter that much. They are of course taken into account, because there is an obvious correlation between perceived effectiveness and actual effectiveness (Price Dillard, Weber, & Vail, 2007).

According to Kirschenbaum (2004), a first step in assessing actual effectiveness is whether the organization delivers what it promises. According to Chen (2010), perceived effectiveness is reached when a stakeholder (the government) perceives the goals to be delivered. However, this does not hold entirely true for emergency management, as there are no actual promises, or expectations as such. The rapid, dynamic nature of emergency management networks results in limited time for the assessment of promises.

This section has shown that perceived effectiveness is difficult to measure. Nevertheless, it has been explained how perceived effectiveness will be used in this research. The remainder of this chapter will outline the factors that may determine perceived effectiveness.

Trust:

There is an enormous amount of literature on the subject of trust, and several definitions, indicators and causal relationships have been identified and researched (Carson et al.). Therefore, the focus lies on authors who have researched and identified trust within networks or organizations. Trust is a difficult notion to define, but has been defined by several authors (McKnight & Chervany, 2000). As Kramer and Cook (2004) argue, there is a variety of definitions and conceptions of trust in organizational context. Trust is essential, as it is similar to what 'commands are price-competition are for bureaucracies and markets, key mechanisms'. According to Fleming (2006), co-operation and consultation are essential, as a formal network structure, (...) consolidates trust and reciprocity and allows initially complex relationships to develop positively. Reciprocity is a 'give and take' culture that regards obligation and advocates the interchange of trust, information and resources. As Fleming (2006) notes that at the heart of networks are 'the notions of trust and reciprocity', trust and reciprocity are the most important factors that define effectiveness. Moreover, effective emergency networks require 'collaborations and raises trust', and (broad) collaboration between governments, private sector,

the non-profit sector and the public cannot be overemphasized, according to Kapucu (2005). The definition of trust in this thesis will be derived from the work of McKnight and Chervany (2000), who have defined four types of trust: 1) disposition of trust, 2) institution-based trust, 3) trusting beliefs and 4) trusting intention. This thesis will rely on the second definition, institution-based trust, as this is the most fitting definition for this thesis, namely: *“Institution-based trust means one believes the needed conditions are in place to enable one to anticipate a successful outcome in an endeavor or aspect of one’s life”*. This follows from the construct that people rely on each other because of their respective roles, structures in place and situations that provide assurances. Moreover, this definition is the most appropriate definition, as in essence the private sector and public sector (government) are the institutions cooperating. Indicators for trust and as identified by McKnight and Chervany (2000) are:

- 1) Competence: ‘means one believes the other organization has the ability or power to do for one what one needs done.’
- 2) Benevolence: ‘means one believes the other organization cares about one and is motivated to act in one’s interest’.
- 3) Predictability: ‘means one believes the other organizations actions (good or bad) are consistent enough that one can forecast them in a given situation’.

Based on the above, the first expectation of the thesis is as follows:

E1: Higher levels of trust from the government towards private actors within the emergency management network will lead to a higher level of perceived effectiveness.

Perceptions and values:

Perceptions and values are abstract conceptions. They differ for everyone, and are therefore hard to analyze and predict. Values often conflict, and identifying and balancing values is a challenging task (Brown et al, 2006). Often, perceptions and values are taken as part of the organizational culture. However, it is beyond this thesis to analyze the organizational culture of both the government and the private actors. Therefore, focus will lie on perceptions and values. This is because organizational culture is hard to define (Whelan, 2016) and debate exists to what extent it is a variable or metaphor (Schein, 2010).

According to Quinn and Rohrbaugh, similar organizational values lead to (perceived) effectiveness. For example, values can be social expectations, and can be turned into normative guides to behavior (Wiener, 1982). Perceptions and values of both actors in the network are treated as a factor in this thesis. If both actors, both the government and the private actors, have

similar views and values, one will regard the other more often as effective, as there will be less conflict.

This argument is also made by Mandell and Keast (2008), who state that differing perceptions and expectations lead to conflict within the network. Thus, similar perceptions lead to less conflict. In addition, from Mandell and Keast (2008: 717) follows *that 'the perception of the stakeholder groups (private actors) is key in determining (...) under which a network may be considered effective'*. In that sense, perceptions and values, or the establishment of those, will show the level to which actor perceives the other as effective. As stated before, traditional performance measures are not always suited to measure unobservable outcomes. Therefore, new and non-traditional methods of evaluation that identify the details of networks, with a focus on the nature of the relationships within a network become imperative. (Mayne et al., 2003). From Schwartz and Bilsky (1987), the following indicators of values can be given: 'Values (a) are concepts or beliefs, (b) pertain to desirable end states or behaviors, (c) transcend specific situations, (d) guide selection or evaluation of behavior and events, and (e) are ordered by relative importance'. In this thesis, it is argued that perceptions that are (more) similar and (more) similar values lead to a higher level of perceived effectiveness. In order to do so, the following definition of values is taken from Wiener (1982): "*social expectations that can be turned into normative guides to behavior*". Perceptions are defined as following: "*The way in which something is regarded, understood, or interpreted*". Thus, this thesis will look for the government's perception of the private actor's actions and to what extent they overlap with their own, and the same goes for values. From the theory in the first chapter and this definition, the following expectation is derived:

E2: The more similar perceptions and values are among private actors and the government, which leads to desirable outcomes and better cooperation, the more the government will view private actors as effective.

Mandate:

Where the first two factors focused primarily on the behavior of private actors, perceived effectiveness cannot be solely be understood and analyzed from one side only. Therefore, the third factor, described as mandate, focusses on both actors of the network, but primarily on the government. Mandate, (or the transfer of mandate), is understood here as the ability from the government to relinquish power to the private actor to do their work within the emergency management network, and consequently the private actor to use this new power and control, or form of leadership putting to good use. The assumption is that when the government

surrenders part of the mandate to the private actor to act in emergencies, the private actor will put this mandate to good use; the more the government will regard the private actor as effective. Mandates have an important impact on (perceived) network effectiveness (Provan, Fish, & Sydow, 2007).

In organizational theory, the process of collaboration with another organization is mainly viewed as conceding autonomy. In spite of everything, even if there is a good amount of trust or similar views, tensions will inevitably arise within networks. Will an actor be considered effective, if that actor has to give up control in order to gain from the network (Cummings, 1984)?

However, this process works two ways. In this case, a private actor will have to give up some authority, in order for the network to be effective. It will have to show that it wants to collaborate, but also needs to receive mandate for this from the government. This process is closely aligned with power, control, or leadership. However, since leadership, power, and control do not rightfully state the perceived effectiveness in emergency management networks, mandate is deemed as better fitting the purpose. Mandate is also correlative in this sense to legitimacy. When working together, both actors make investments in processes that include information sharing, resolving accountability issues and coordination. These processes lead to a certain amount of legitimacy.

According to Chen (2010), ‘Collaborative processes mediate the relationships between preconditions for collaboration and perceived effectiveness.’ Nevertheless, the term mandate is a prerequisite of this all, and will therefore be considered as a factor that determines perceived effectiveness. While most networks are formed from a bottom-up approach, some exist with a structure that come from the government, as an external entity. While this is mostly the case in the public and nonprofit sectors, it also occurs within other realms, such as emergency management networks. The following definition is taken to help conceptualize mandate: “*the ability from the government to relinquish power to the private actor to do their work within the emergency management network, and consequently the private actor to use this new power and control, or form of leadership putting to good use*” (Chen, Hsuan Yun Chen, Vertinsky, Yumagulova, & Park, 2013). The following indicators are taken to examine to what level this mandate, or transfer of mandate, is actually contributing to the perceived effectiveness of the private actor.

- 1) Information sharing: To what extent the government is willing to share and provide information, and to what extent the private actor is willing to share and provide information.
- 2) Resolving accountability issues: The extent to which the government is willing to accept and take responsibility for the failures that might have arisen in the process of emergency management.
- 3) Coordination: Coordination revolves around the process to which the government is assigning tasks to the private actor in a very broad sense. The perceived effectiveness is then evaluated as the way in which this is picked up, or carried out by the private actor.

Deriving from this definition and the indicators, the third expectation of this research is as follows:

E3: The more mandate is given by the government to a private actor, the higher the perceived effectiveness of the private actor within emergency management networks will be.

The aforementioned three factors have been identified in the literature and are deemed to determine the perceived effectiveness of private actors in emergency management networks. By integrating different opinions from different authors, this section has provided a framework that is crucial for determining what factors determine the perceived effectiveness of private actors within emergency management networks, as seen from the government.

This section has been developed in agreement with Cameron (1986) who states that ‘an agreement about effectiveness is mainly an agreement to disagree’. As long as the selections are ‘rationally bounded and justified’, there may be flexibility in the selections of the criteria of perceived effectiveness, inasmuch as they are relevant to their context. In this chapter, it has been attempted to do so. The literature on perceived effectiveness of security networks has been analyzed and laid out. Furthermore, a theoretical framework has been developed, delving into perceived effectiveness. Three factors, (trust, perceptions and values, and mandate) have been identified in the existing literature that may influence perceived effectiveness, which will be used to analyze the three cases.

Chapter 2: METHODOLOGY

This chapter will focus on the research design of the thesis. It is in a way the bridge between the chapter above, the theory, and the chapter below, the analysis. First, the methodology of the thesis will be discussed. A reasoning will be given why certain methodologies have been chosen over others. Next, the methods of the research will be explained, dealing also with the validity of the chosen case study. Hereafter, the operationalization will be dealt with, divided into data collection and data analysis. In this section, all concepts will be thoroughly operationalized and discussed. In addition, most importantly, this section will explain how exactly perception of effectivity is being analyzed and how the presence of all the factors will be analyzed. Lastly, the section will end with a critical assessment of the validity and legitimacy of the research, looking at the limitations of the research as it stands.

To start, this research will follow a deductive, qualitative method approach. According to Perry and Rainey (1988), this kind of research in the public-private continuum will only work if there is a set of categories laid out, which has been done by introducing the factors in chapter two. The difference between deductive and inductive is that in deductive research, data is collected based upon the (existing) theory and expectations. In inductive research, it is the other way around. A theory is being formed based upon the data found. Therefore, this thesis contains more elements that follow the line of a deductive approach, as data is collected and analyzed based upon the theoretical framework (Elo & Kyngäs, 2008).

Furthermore, this research has elements of the post-positivist school of thought, in which reality is socially constructed. This means that there is a focus on constructions and meanings, instead of gathering facts (Mohd Noor, 2008). As argued for by Boodhoo and Purmessur (2009), qualitative research has a couple of advantages that are not found in quantitative studies. First, qualitative data is a more empathic mode of research, providing a ‘feeling’ that cannot be found in numerical data and/or statistical data. Especially since this research works with abstract concepts such as trust and effectiveness, a qualitative research is a more comprehensive and logical approach. Moreover, the use of a qualitative approach is considered a more flexible way of ‘collecting, analyzing and interpreting the data and information’. In addition, a qualitative approach makes way for a more explanatory research, from which multiple conclusions can be derived. This is explained further in the sub-section on data-collection. Furthermore, a qualitative research is able to uncover the complex processes that occur. Quantitative research is too broad and general to uncover these complex processes.

This research can be described as explorative. This means that the research is not testing certain hypotheses, but gives certain expectations, which are derived from the theoretical framework. In short, an explanatory research is mostly used when there are limited studies to rely upon, in order to predict a certain outcome. This is the case in this research, as has been outlined in the literature review in the first chapter. In this explanatory research, hypotheses (in this thesis called expectations), are being tested through the analysis of data. In this research, the factors identified in the prior chapter, namely trust, perceptions and values, and mandate, will be proven true or false through the analysis of data. How these factors will be analyzed will be further explored in the coming sub-section on data analysis in this chapter (Given, 2008).

Methods:

This thesis will use a multiple holistic comparative case study, as indicated by Yin (1984). The advantage of such a design is that multiple cases often produce more compelling evidence than a single case. Moreover, a multiple comparative case study will yield the most compelling results when analyzing multiple factors. In addition, because of the focus on multiple factors, it has been chosen to focus on multiple cases. In this way, the validity of the results are higher. Through the comparison of multiple cases, one can gain a better insight into relations (Bryman, 2012). In this manner it can be analyzed whether or not the factors that are present are representative for the all the cases, or just for one of the cases selected.

The holistic element of this method comes from the unit of analysis. The unit of analysis in this research is not an individual or organization, but is broadly defined (Yin, 1984). In this research, the unit of analysis is the interaction between actors, thus the interaction between the government and the private sector. While focus will lie on the private actor, the overarching focus will be on the interaction between the actors, as this will indicate trust, perception and values, and (transfer of) mandate. The units of observation are the organizations themselves, both the government and actors from the private sector. In this comparative case study, the dependent variable is the perceived effectiveness, and the independent variables are the factors, thus trust, perceptions and values, and mandate. As they are independent variables, this means that they are not connected or related per se. While there might be overlap, it is also possible that one factor is determinant of perceived effectiveness, while another is not.

Selection of cases:

In this thesis, three cases will be analyzed that in one way or another involve private actors in their respective emergency management network. More cases lead to a higher validity of the results (Yin, 1984). In this research, it is of importance that multiple cases include a) private

actors, b) an emergency management network and c) provide sufficient data to evaluate perceived effectiveness through interactions. For example, in a terrorist attack, a different approach is taken in emergency management than in a natural disaster or emergency, such as a hurricane or tornado. In a foreseeable emergency, more preparation is possible, and therefore the perceived effectiveness through interactions is more manageable and researchable. In addition, the incubation period, the period of time in which 'the normal' is changing is very short in emergencies such as terrorist attacks or other emergent crises.

More similarity among cases will lead to a better comparison, which in turn will lead to a more valid research. For this reason, and the following, it has been chosen to focus primarily on hurricanes in the United States. However, since little data exists on the performance of the emergency management networks in the United States, one unforeseen emergency, a tornado has been included. All the cases have received wide media-attention, are well-known in both the academic literature and have been subject to multiple government reports. However, in neither of these cases has the (perceived) effectiveness of private actors been assessed. Therefore, all three cases make for excellent cases to research in this thesis.

The three cases will be analyzed in chronological order. This is done in order to be able to analyze if there is any evolution in the factors that determine perceived effectiveness.

The first case that has been selected is Hurricane Katrina in 2005, which had an enormous impact on the community and society. The amount of criticism involving the engagement of private actors and lessons learned from this emergency make that Katrina is an excellent first case to study. It has been chosen to start in 2005 with Katrina, as the evolution of perceived effectiveness is also measurable now. The next case is the 2011 Joplin, MO, Tornado, which was not foreseen, but makes for an interesting case as the recovery went very smoothly. Partly, this was due to the help of the private sector. The last case is Hurricane Sandy in 2012, in which the government received considerable praise for its efforts to collaborate with the private sector.

To sum up, the cases have been selected due to their enormous impact on society and the community, but also because they have meaning with emergency management. Katrina shows that private actors should be more involved. The 2011 Joplin, MO, Tornado demonstrates that a good emergency plan, including private actors, is beneficial for the recovery and relief efforts. Lastly, Hurricane Sandy exhibits that when the government is actively seeking out the help of the private sector, relief efforts become more successful. The three cases all do overlap,

but the government has different ways of cooperation with the private sector in each of them. This makes the cases very interesting to research.

As follows from Figure 1, the selected hurricanes are amongst the costliest in the history of the United States. It should be noted that it is of course not a pre-given that the measurement of perceived effectiveness and the presence of the factors are more likely to be present in a more costly emergency.

In Figure 1, the following cases have been selected:

Disaster:	Year:	Costs:	Casualties (Deaths):	Region:	Source:
Hurricane Katrina	2005	\$160BN	1836	Florida, Louisiana, Mississippi, Alabama, Georgia, Kentucky and Ohio.	(Chuck, 2017)
Joplin, MO., Tornado	2011	\$3BN	158	Joplin, Missouri	(National Weather Service, 2011)
Hurricane Sandy	2012	\$70.2BN	158	United States East Coast	(Rafferty, 2017)

Figure 1

Operationalization:

This section will cover the collection of the data used to answer the main question: What factors determine the perceived effectiveness of private actors in emergency management networks as seen from the government? Also will be explained the techniques on how this data is analyzed. Important in this section is the explanation of the collection of data, and the validity thereof. Even more important is the section on the analysis of the data, in which explains how the data is analyzed. This section will convert the abstractness of perceived effectiveness, trust,

perceptions and values, and mandate into a more understandable definition by operationalizing these concepts. Furthermore, it will be exactly indicated how these factors are found in the data.

Data Collection:

Most of the data that will be used will come from the Government of the United States of America and its sub-agencies, such as the Federal Emergency Management Agency (FEMA), which in turn is part of the United States Department of Homeland Security. (FEMA, n.d.) By using mostly official documents and reports, the chance of personal opinions and judgements will be limited. The documents that are referred to are in each case the official FEMA-evaluation report. Where possible, the federal governments' report is also analyzed. In addition, each case features several governmental reports that give recommendations for future emergencies. Moreover, official documents have more credibility, legitimacy and authenticity than for example reports from the media (Mogalakwe, 2006). Further, this thesis will use secondary sources such as (academic) articles, which have reviewed the role of the private actors and the government in these hurricanes. However, it is noted that they are mostly very critical of the relief efforts in general. Therefore, it will be attempted to minimize the use of academic articles if a government report is available.

A better option would be to triangulate the methods, by using surveys or interviews. However, time and distance do not permit such a method for this thesis. Data collection will further be enhanced by the use of Neuman's (2014) snowball sampling, in which data is searched for in already known documents. Through these methods of data-collection, most data can be uncovered.

Furthermore, it is beyond the scope of this research to examine all government reports and academic articles on the hurricanes, especially in the case of Hurricane Katrina, which features extensive literature. Therefore, in the case of Katrina, a selection has been made that focuses on the highest authority. This means that there is a greater focus on reports from the national government of the United States of America than on local authorities such as the Office of the Mayor of New Orleans, Louisiana.

Only documents and reports that were published concerned with cooperation in the emergency will be analyzed. As has been stated, primarily the FEMA and DHS reports will be analyzed. These can be found online, as the database of the Government of the United States, the database of the Department of Homeland Security and the database of the Federal Emergency Management Agency are freely accessible. Next to this, academic articles and

media reports will provide more background information and another standpoint. Lastly, for each case will be looked for reports from companies and other private sector actors.

In the case of Hurricane Katrina, plenty of data can be unearthed. There is a FEMA-report, a report from the Federal Government, and plenty of academic literature, critically assessing the role of the government and of the private sector. Furthermore, reports from companies such as Wal-Mart and other private actors are also featured.

In the case of Joplin, MO (2011), the local government and FEMA provided reports that will be used to analyze the data. A federal government report is lacking in this case. However, several academic articles will be brought into play, next to media articles. In addition, the private sector also provided reports and data that will be used.

In the case of Hurricane Sandy, plenty of governmental reports, both from FEMA, the federal government and the local government have been found. These will be used to analyze the perceived effectiveness of the private actor. Academic articles are used to a lesser extent in this case, because of the quantity of government reports.

The collected data will be analyzed using the selected cases, by going through the selected documents and reports through mainly desktop research. By means of document analysis, quotes, paragraphs and sentences will be analyzed to look for the factors that determine perceived effectiveness. One could also describe these as ‘themes’. These quotes, paragraphs and sentences will be featured in the analysis section.

As stated before, if time had permitted, interviews would have been a welcome addition to the research. However, the time constraint and distance did not allow for the inclusion of the interviews. Therefore, the focus will lie entirely on desktop research and document analysis.

Data Analysis:

This section will explain how the data is analyzed. It will convert the concepts into operationalized definitions, and will provide indicators for those definitions. Moreover, it will explain in detail how certain concepts are assessed and analyzed in the data. This research utilises multiple concepts that are abstract and difficult to define. Often they are open to multiple approaches, opinions and viewpoints, and therefore highly debatable. This part of the chapter will try to explain these concepts as thoroughly as possible, within the realm of crisis and security networks. This means that other definitions are also possible, and might even be more valuable and applicable in some cases. However, the following definitions and their indicators are thought to be the most reasonable and effective definitions and indicators in this research.

This research therefore does not argue that the definitions used are the ‘best ones’. It is argued that the definitions that are used are those that fit this research the most. However, they do come from previous work of scholars in similar or adjacent studies and are therefore reliable definitions and indicators.

First, perception and perceived effectiveness will be conceptualized. Hereafter, the three factors will be operationalized.

Conceptualization:

Perception from the government:

The research revolves around the perception from the government towards the private sector. In general, it has been established that perception is difficult to measure. This research nevertheless focuses on the point of view from the (federal) government. Because the phenomenon of ‘perceived effectiveness’ is researched, not all data uncovered will be explicit per se. Some data will be between ‘the lines’. An important remark here is that this means that the data sometimes revolves around the opinion of the researcher. Repeated research may therefore find a different outcome in this regard. Therefore, the choice of research question (perception from the government solely) is of influence on the replicability of the research. It is taken into account that sometimes, expectations may influence the perceptions that are found (Verlet & Devos, 2010).

Perceived effectiveness:

As stated above, perception is difficult to measure. However, this research defines perceived effectiveness as indicated by three factors: acknowledgement, cooperation and a (perceived) positive outcome. This is in line with Kushner and Poole (1996), who state that criteria for perceived effectiveness must be cumulative. Firstly, perceived effectiveness does only occur if there is acknowledgement from the government that the private sector is able to contribute. Subsequently, in order for perceived effectiveness to be observed, cooperation between both actors is necessary. Lastly, in order to reach perceived effectiveness of an actor, the outcome has to be regarded to a certain degree as positive as well. Thus, perceived effectiveness can only occur when both acknowledgement and cooperation are present, and consequently leads to a (perceived) positive outcome by the government. It is important to note that perceived effectiveness is a subjective concept as what follows from the documents are opinions and judgements.

The following definition of perceived effectiveness is taken from Provan and Kenis (2009), and that definition will be followed in this thesis: *“an attainment of (perceived) positive network-level outcomes that could not normally be achieved by individual organizational participants*

acting independently". The criteria for effectiveness that have been identified so far are thus acknowledgement, cooperation and a (perceived) positive outcome. The three factors trust, perception and values, and mandate and their subsequent indicators, as identified in the previous chapter will be used to assess the perceived effectiveness present in each case

These concepts and their indicators/criteria are outlined in the table below, and will explained hereafter:

Concept:	Definition:	Indicators:
Independent Variables		
Trust:	<i>Institution-based trust means one believes the needed conditions are in place to enable one to anticipate a successful outcome in an endeavor or aspect of one's life.</i>	<ul style="list-style-type: none"> i. <i>Competence</i> ii. <i>Benevolence</i> iii. <i>Integrity</i> iv. <i>Predictability</i>
Perceptions and Values:	<p>Perceptions: <i>The way in which something is regarded, understood, or interpreted.</i></p> <p>Values: <i>social expectations that can be turned into normative guides to behavior.</i></p>	<ul style="list-style-type: none"> i. <i>Similar perceptions</i> ii. <i>Similar values</i>
Mandate:	<i>The ability from the government to relinquish power to the private actor to do their work within the emergency management network, and consequently the private actor to use this new power and control, or form of leadership putting to good use.</i>	<ul style="list-style-type: none"> i. <i>Information sharing</i> ii. <i>Resolving accountability issues</i> iii. <i>Coordination</i>
Dependent Variable		
Perceived Effectiveness	<i>An attainment of (perceived) positive network-level outcomes that could not normally be achieved by individual organizational participants acting independently.</i>	<ul style="list-style-type: none"> i. <i>Acknowledgement</i> ii. <i>Cooperation</i> iii. <i>(perceived) Positive outcome</i>

The following graph gives an overview of the perception of effectiveness and the factors that further determine perceived effectiveness:

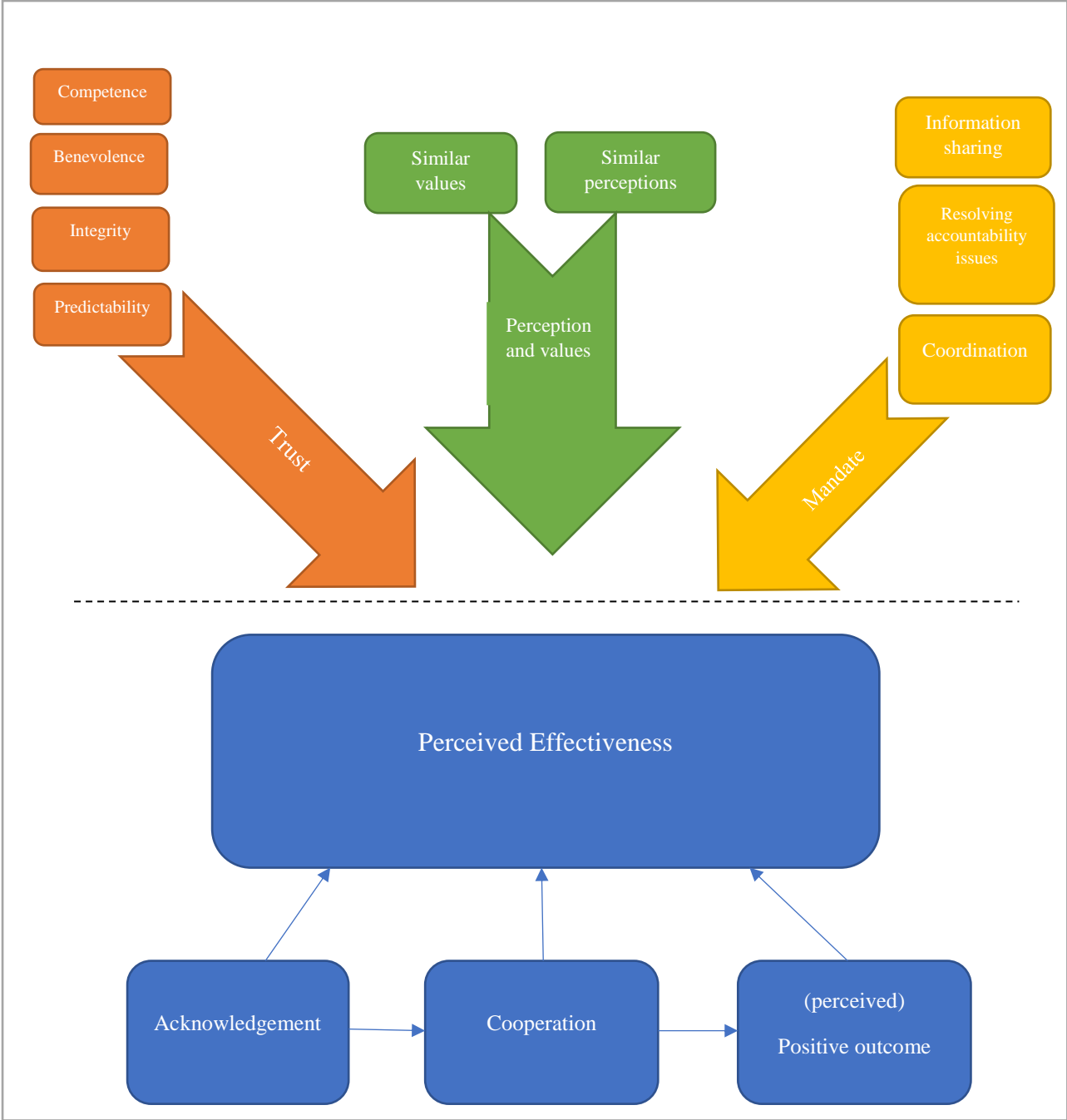


Figure 2: The above figure shows that the criteria for perceived effectiveness are acknowledgement, cooperation and a (perceived) positive outcome. Further, perceived effectiveness is determined by trust, perception and values, and mandate and their preceding indicators.

Trust:

A higher level of trust between partners will lead to a higher level of effectiveness. This thesis views trust as a normative concept, which is then considered ‘good’ as opposed to ‘bad’. As indicated by Lewicky et al (1998), ‘under conditions of low trust, an individual or actor has no reason to be confident’. On the other hand, the literature states that higher levels of trust lead to more cooperation and positive relationships, leading to effective outcomes. Through the presence of the following indicators, this research will research to what extent trust is present in the three cases. Competence is researched as to what extent the government perceives the private actor to be able to contribute. Benevolence is researched as to what extent the government sees the private sector as willing to contribute. Predictability is researched as to what extent the government believes or perceives the private actor to be honest and of good faith, thus the extent to which the government is being able to count upon the private sector. These indicators are found in themes, and are thus to a certain extent subjective.

Perceptions and values:

This research expects that similar values and similar perceptions will lead to perceived effectiveness. Similar values and perceptions are researched in the following manner: It is expected that the government has values and perceptions about emergency management, such as a fast recovery, quick relief efforts and for example restoring the local economy as quickly as possible. In this thesis, several of these examples of values and perceptions will be outlined, and it will be analyzed to what extent these align with the values and perceptions of the private sector. The more they align, the higher the perceived effectiveness of the private sector is expected to be.

Mandate:

Mandate is a difficult concept to define and research. It is challenging to determine where the mandate of the government reaches. The question is to what extent is it considered effective if a private actor uses the mandate it gets from the government and to what extent is it considered ineffective. It might therefore make more sense to talk about the transfer of mandate instead of just mandate. Mandate is characterized by three indicators: Coordination, accountability and information sharing. Coordination is researched as to what extent the government organizes the relief efforts and incorporates the private actor in the relief efforts. Accountability is researched as to what extent the government answers to the faults and to the successes of the private actor. Information sharing is researched as to what extent the government does share information with the private sector. In all three indicators above, it is also taking into account the extent to which the private actor makes use of the mandate that is given to them.

Challenges:

Reliability:

It has been stated several times so far that a perfect set of factors of (perceived) effectiveness does not exist. Furthermore, the conclusion of this thesis will have to prove to what extent the factors that have been identified to determine perceived effectiveness are justified. Moreover, the selection of only three criteria impedes the conclusion even further. Other factors may play an even important role but are not taken into account, because of the scope and time reserved for this thesis. However, since the literature argues that since a good set of criteria does not exist, it can be argued that a *wrong* set of criteria does not exist either. This research can therefore be seen as an extension to the debate on effectiveness, within networks or organizations. Consequently, it aims to contribute to that debate by evaluating the factors identified.

However, the reliability of this research has been increased by the way data is collected and operationalized. Through consistency and transparency, a higher reliability has tried to be achieved. The use of clear indicators and descriptions will lead to a higher reliability (Bryman, 2012). Moreover, by explaining methodology, methods, case study selection, data collection and data analysis this chapter has attempted to increase reliability.

Validity:

This section will evaluate and critically assess the external and internal validity of the research. What are the pitfalls, and what has been done to minimize the limitations?

External Validity:

A high external validity means that the results of this thesis will also be valid for future researches into emergencies, whether hurricanes or not, whether or not in the United States. The external validity of this research is compromised by the fact that it focuses only on one country, the United States, and that it focusses on one kind of emergency or disaster, hurricanes. Therefore, the model is not easily applicable to other cases. As argued for by Wang (2016), most models on emergency management are already focused on the Western Hemisphere, and therefore we cannot know to what extent these models hold in other cases. This is also the case in this research, and therefore limits the external validity. However, through the analysis of these cases, results are found that can be given back to the theory. Thus, through qualitative research like in this thesis, the theory is enhanced, instead of enriching the data and applicability to other countries.

Internal Validity:

Internal validity relates to the consistency and relevancy of the research design. Through consistency between the analyses of the case, a high accuracy of operationalization and methodology, a high internal validity of the research is reached. In this research, there is a high internal validity, as there is a comparison between three cases in the same country within a time span of 10 years (2005-2012). Furthermore, through the consistent manner of analysis, the results are internally valid.

Limitations:

A limitation to this thesis is the method of data collection. As time does not permit interviews, it is solely based on secondary sources. While this remains a valid method, better and more concise data may be found when including primary sources such as interviews or statements. In addition, as explained earlier, emergency management is always improving, after every emergency. Therefore, a research into the factors that determine perceived effectiveness is quickly outdated. Probably not within five years, as is the case now, but it is an evolving field in which more research is becoming available quickly.

This chapter has explained the methodology of this thesis. First, it has expanded on the methodology, and subsequently has explained the methods used in this research. Next, it has explained the choice for the selected case studies. It has explained why, what, and how data will be found and analyzed, and has conceptualized important concepts and constructs. Lastly, the reliability, external and internal validity of the research has been critically assessed.

Chapter 3: ANALYSIS

In this section, the three cases will be analyzed as described in the previous section. First, Hurricane Katrina will be dealt with. Then, the analysis will delve into the 2011 Joplin, Missouri, Tornado and lastly Hurricane Sandy will be analyzed. Each case will start with a short overall description of the hurricane and its overall perceived effectiveness. Then, it will be researched to what extent each of the factors; (trust, perception and values, and mandate) determine perceived effectiveness in emergency management networks in the United States, as seen from the government. Each case will feature a short conclusion.

Hereafter, in the discussion section this thesis will provide an answer to the three expectations as formulated in the previous chapter:

Case 1: Hurricane Katrina (2005):

Hurricane Katrina made landfall on August 29 of 2005, near the city of New Orleans, Louisiana, United States. As described in the introduction of this research, the city was initially thought to be spared, but as the storm quickly grew, the populous region on the Mexican Gulf was subject to strong winds and major flooding. An estimated 80 percent of the city was set under water, causing more than a thousand deaths. Harsh criticism emerged after the storm, as it is believed all this could have been prevented. While the city of New Orleans is subject to most media-reports, the neighboring state of Mississippi was also severely hit. Katrina turned over 60% of the state into a ‘catastrophic disaster area’ (Davis et al., 2006). Where the city of New Orleans knew 470.000 people living within its boundaries, the storm made that a mere six months later, no more than a 100.000 people called New Orleans their home. Local economies were destroyed; most people in the wider region had to live for a substantial time in temporary housing and more than six months after the storm, over 3000 people were still missing (Davis et al., 2006).

Harsh criticism was directed towards the American government, in particular towards FEMA, especially from the Bipartisan Committee of the House of Representatives. The government report from the House of Representatives is called ‘A Failure of Initiative’ for a reason. The following quote from the introduction says it all: “Government failed because it did not learn from past experiences, or because lessons thought to be learned were somehow not implemented. If 9/11 was a failure of imagination, then Katrina was a failure of initiative. It was a failure of leadership”. This particular quote from this particular rapport shows the government failed its people. Overall, the rapport states that failures at all levels of government occurred. Moreover, these failures ‘significantly undermined’ the heroic efforts that were

carried out by first responders, the private sector and other groups, such as churches. The report blamed the government for a lack of leadership and problems related to information. The overall response required agility, flexibility and adaptability, which were all lacking in the response by the government. Therefore, it can be very easily concluded that the overall perceived effectiveness of the emergency response was very low. This is however as seen from the perspective aimed at the government. According to Horwitz (2009), there should be more attention to the role of the private sector in the emergency relief. According to Horwitz, big-box retailers, such as Wal-Mart and Home Depot were successful in the response to the Hurricane, as they acted with speed and effectiveness, despite the fact that government workers were not always supportive of that effort. According to Horwitz, the private sector prevented looting and chaos and saved numerous lives. Several community leaders in the New Orleans and other communities along the Gulf Coast were praising Wal-Mart's quick and effective response to Katrina (Leonard 2005). It appears that the combination of the failure of FEMA and the successful response of Wal-Mart confirms the conclusion that the private sector has an advantage in mobilizing resources over the government.

During Katrina, perceived effectiveness was low. In general, it appears that during Katrina, the government was, firstly, not acknowledging the private sector as being able to help, thus denying them to be perceived as effective. Would the government have acknowledged the help of the private sector, this could have led to cooperation and a more (perceived) positive outcome. As the private sector were not acknowledged, there was little cooperation during Katrina. It appears that all help from the private sector was initiated by the private sector itself, not cooperating with the government in the relief efforts. Subsequently, there was also no general (perceived) positive outcome, as has been stated by several reports. It appears however, that there are differences between the local and federal government in this regard.

Nevertheless, the general conclusion remains that, despite the response of the private sector and some government agencies, the overall perceived effectiveness of the response was low. This is shown by the many reports that criticized the DHS and FEMA after Katrina. In the remainder of this case, it will be analyzed to what extent the government perceived the private actor to be effective, as it seems at first glance that it was just the private sector, which was effective. Again, it should be taken in account that in the case of Hurricane Katrina, the private sector was less involved than it is nowadays.

Trust:

In the case of Hurricane Katrina, it appears that trust was low, especially at the level of the national government, such as FEMA. According to the rapport of the House of

Representatives, local officials turned to the private sector quickly after the impact of Katrina had been noted. For example, the mayor of Fayetteville, Arkansas, clearly indicated that he thought the private sector was competent, as he made the following statement: *“Once we started seeing that we were going to have this enormous influx of material, we knew that there was no one better in the world for distribution and collection than Wal-Mart Corporation. So we made some calls. And they immediately sent down some folks. And they showed us how to arrange a warehouse and they made it spin like a top,”* (Davis et al., 2006; 328). Initially, there was little trust from FEMA, or the Department of Homeland Security, in the involvement of the private sector. This appears from the fact that FEMA initially refused, or did not know how to deal with the help of the private sector (Edwards, 2015). This process will be extensively dealt with in the subsection on mandate, but is important to note. Actually, this implies that the FEMA did not trust the private sector, and thus did not contribute to the perceived effectiveness. However, it is too soon to draw conclusions based on this alone. In particular because after two weeks, Douglas Doan, director of the Office of the Private Sector of the Department of Homeland Security, made a very unorthodox call to use the delivery system of Wal-Mart in order to deliver first-aid goods, and supplies such as water and food, which was lacking severely. FEMA was not able to deliver these goods, and thus Doan made the call to contract Wal-Mart and its delivery system. It proved to be very effective, and the call from Doan to trust Wal-Mart seemed to be the right call. Doan believed the private sector to be competent and sincere enough to carry out the tasks. He knew that Wal-Mart would do what is promised – predictability - and thus trusted them. One could argue that Doan perceived Wal-Mart in this case as effective. (Cooper & Block, 2006: 259-266)

However, the DHS could not be more dissatisfied. Even so, they threatened with legal action against Doan. The legal office did not follow through with their threats though. Wal-Mart was paid for its efforts, and the DHS never acknowledged the amount of work Wal-Mart had done in their favor. The DHS clearly did not view the private sector’s involvement as benevolent, competent or sincere, as they refused to acknowledge the involvement and success of Wal-Mart. This means that the DHS, or the government, did not trust Wal-Mart. Whether this is because of a lack in the belief of competence, competence, predictability or integrity cannot be derived from this. However, it is clear that on the national level, trust did not add to the perceived effectiveness of the private sector. This also follows from the fact that the public sector has little to no (institutional) trust in the institutional framework that the DHS has developed to contract the private sector. According to Abou-Bakr (2013), agencies do not want to rely on the framework that is in place, but rather use their direct ties to the private sector.

According to Fran Townsend, the Assistant to the President for Homeland Security and counterterrorism from 2004 to 2008 under George W. Bush, public agencies do not trust the existing framework on public-private cooperation, including in emergency management networks during Katrina. Thus, a lack of trust in the existing framework undermines the coordination between public and private actors. This does not mean that it can be concluded that there is a lack of trust from the public agencies in private actors, and this did not contribute to the perceived effectiveness. It means that there is a lack of trust in the framework. It can be argued that because of this, private actors are not perceived as effective by the public sector and are used less in relief efforts (Abou-Bakr, 2013). According to Abou-Bakr, during Katrina Wal-Mart was not trusted by the DHS and they were believed 'not be valuable'. This lack of belief of competence and thus trust means that the DHS did not perceive the private sector during Katrina as effective. One can even argue that Wal-Mart was one of the few companies that had the competences to help, as Doan knew. It can therefore be argued that smaller companies, or companies which could help to a lesser extent, were even considered being less effective in times of emergency. According to Leonard and Rosegrant (2007), most of the time there is a lot of skepticism to trust private actors in emergency management. Examples of this is the lack of trust the DHS had in Wal-Mart during Katrina. Moreover, public leaders do often think that their own capabilities are as good as, or better than those of the private sector, which means a lack of belief in competence from the public sector towards the private sector (Abou-Bakr, 2013).

Very indicative for the foregoing is the fact that in little to no government report is it acknowledged that the government did not fully exploit the resources the private sector offered. The government or the DHS in this case, is reluctant to see that the overall response failed partly because of their own lack of trust in the private sector.

In sum, trust seems to have a relation to perceived effectiveness, but not in the way that was anticipated. At the local level, the public sector believed that corporations were competent and benevolent enough to request for their help. They were proven right. However, at the national level, trust was not present at the public sector. Even when Wal-Mart knocked on the doors of the DHS with the goods they desperately needed, DHS and FEMA refused their help, or only reluctantly let them help. After Katrina, it became clear that the private sector had proven to be effective, but the government did not show that they perceived them as effective. However, it is difficult to measure to what extent this was caused by a lack in trust in the private sector, or because DHS and FEMA were too proud to admit defeat and accept the help of the private sector.

Perceptions and Values:

As has been pointed out in chapter two, the private sector has some different interests in emergency management than the public sector. This does not pertain directly to self-interest, but it is of course of a higher importance for the private sector than the public sector.

As private actors are dependent on revenue and the satisfaction of their stakeholders, public actors, especially in emergency management, do not have to care about revenue, and to a lesser extent of the satisfaction of their stakeholders. According to Abou-Bakr (2013), private actors during Katrina participated mostly because it prevents mostly future or eventual losses. This is because private actors can help restore their own businesses too quickly. While this pure self-interest, as indicated by Provan and Milward (2001), the values are in essence the same. The public sector has the same value to restore the economy as quickly as possible. As was argued by Wal-Mart: “Given that disasters happen, that those disasters will impact communities, and that Walmart is in those communities, it is Walmart’s aim to restore normalcy as quickly as possible. It is in our and our customers’ interest for us to get involved” (Abou-Bakr, 2013: 69). As argued for by Leonard and Rosegrant (2007), in the case of Katrina, Wal-Mart is no altruistic organization in the sense that it can provide endless help to those who need it. Therefore, one still needs to regard Wal-Mart as a profit-driven corporation, who mainly acts out of self-interest. Nevertheless, this was never denied by Wal-Mart either. According to Leonard and Rosegrant (2007): ‘While they are not altruistic, their interests often align to the common good and they are able to work in everyone’s interest’. Therefore, although the motivations of the public sector and those of the private sector may not align, it is in the same interest of both the public and the private sector to cooperate and respond during a crisis. According to Abou-Bakr (2013), several reasons, or values, motivated Wal-Mart to get involved before, during and after Hurricane Katrina. First, the corporation protected the over 35.000 affected employees it had in the region affected by the storm. Furthermore, Wal-Mart needed assistance to keep its stores running, also to provide emergency supplies. Next, the region was heavily dependent, and therefore Wal-Mart was of the opinion that it needed to help the communities: “Enhancing disaster preparedness in our communities creates clear benefits for business and for society. More effective preparedness and relief programs reduce the loss of life and property and strengthen cohesiveness of communities in neighborhoods and the workplace” (Wal-Mart, 2016). This is naturally in line with the objectives of FEMA, whose five main objectives are prevention, protection, mitigation, response and recovery (FEMA, 2017). Especially concerning the response and recovery objectives, the values and motivations of the private and public sector align. However, there are no indicators whatsoever that this

alignment of objectives made that the public sector perceived the private sector as effective. While they were allowed to help, and distribute their products, no praise or acknowledgement can be found in any government reports. The only praise comes from local governments, or officials such as former President Clinton (Haddow & Coppola, 2006).

It was not only Wal-Mart that contributed to the disaster-stricken areas: other companies such as Home-Depot, Weyerhaeuser and Chevron also assisted the community with several relief efforts: For example, Weyerhaeuser, a multimillion-dollar company with branches in the affected area, developed several programs after Hurricane Katrina hit their employees. These range from cash donations to shelter and food. However, the most important thing Weyerhaeuser did, in the eyes of FEMA and the government at least, was the establishment of a disaster response guide. In this guide, Weyerhaeuser Hurricane Disaster Relief Coordinator Katy Taylor formalized the disaster response and recovery operations as done by Weyerhaeuser, so other companies could follow their example. The reason for this formalization was that the Weyerhaeuser response was widely praised ‘as the gold standard for disaster relief programs’, also by government agencies such as FEMA (Haddow & Coppola, 2006). Not only does this example of Weyerhaeuser show that values and perceptions among government and this private firm align, it also shows that through these similar perceptions and values the government perceives this particular firm as effective.

However, it should not be forgotten that the importance of the self-interest argument by Provan and Milward should be stressed. Helping the region was mainly very beneficial to the brand loyalty of Wal-Mart, Weyerhaeuser and all the other companies that brought aid (Abou-Bakr, 2013). As is also argued for by Edwards (2015) for-profit firms have strong incentives to aid the public when a disaster strikes. In order to gain respect and loyal customers over the long term, but also from a charitable point of view companies are willing to aid those in need.

Overall, it seems that the values and perceptions of the private sector and the public sector are to a certain extent similar during Katrina. The private sector understood the need for action that would cost them, but would improve the region. In addition, while some may have been done out of pure self-interest, it remains that the values and perceptions were the same as the values and perceptions of the government: to get the local economy and its people back on its feet. However, it does not seem to have influenced the perceived effectiveness of the private sector too much, as little acknowledgement can be found in government reports.

Mandate:

Whereas the foregoing showed that trust in private actors was not present, or at the very least to a little extent, and where perceptions and values aligned to a certain extent but overall did

not contribute to perceived effectiveness, mandate shows a combination of these two. Mandate, the combination of coordination, accountability and the sharing of information, has not led to more perceived effectiveness in the case of Katrina. Quite the opposite: perceived effectiveness was never a probability, as the government, or FEMA, was not letting the private sector help as effectively as they could.

This follows firstly from the official government report published by the Bush Administration: *The Federal Response to Hurricane Katrina: Lessons Learned*. As follows from the title, and affirms the general opinion about the government's response to the disaster, relief efforts could have done better. According to the report, the private sector met roadblocks in its efforts to cooperate in the relief response with the federal government. Countless examples can be given, such as the American Bus Association who tried to contact someone from FEMA to coordinate bus deployment for the evacuation of the disaster-stricken areas, without success (Executive Office of the President of the United States, 2006). FEMA turned away water from Wal-Mart, and blocked the delivery of diesel fuel. Private medical aid transport for those in need of urgent medical care was blocked by FEMA officials. FEMA did not allow Amtrak to evacuate victims by train. FEMA repeatedly did not allow the delivery of emergency supplies to hospitals in New Orleans (Edwards, 2015). FEMA kept firefighters and first-responders out of the area, who volunteered to assist in the area. Call from Wal-Mart were not returned or returned days later. According to the private sector, they had no idea who was in charge (Horwitz, 2008). In the following two weeks, the Department of Commerce set up a hotline that tried to close the gap between the public and the private sector. This way, they tried to coordinate the contracting of resources, and the sharing of information. (Executive Office of the President of the United States, 2006). However, this was excessively late in order to be effective. The following quote from the report says it all about the coordination of the governments towards the private sector: *"Time and again, government agencies did not effectively coordinate relief operations with NGOs. Often, government agencies failed to match relief needs with NGO and private sector capabilities. Even when agencies matched non-governmental aid with an identified need, there were problems moving goods, equipment, and people into the disaster area. For example, the government relief effort was unprepared to meet the fundamental food, housing, and operational needs of the surge volunteer force"* (Executive Office of the President of the United States, 2006: 64). Throughout the whole disaster, FEMA and other government officials had no clue what to do with the resources they were offered, and declined those offers then more often than not. There was a lack of an effective mechanism that could find out whether some actor

other than the government was able to better respond to the needs of the region. (Executive Office of the President of the United States, 2006).

More examples of this come from Wal-Mart. According to interviews held by Abou-Bakr (2013), Wal-Mart struggled to coordinate their response with FEMA and the federal government. The many shortcomings in the public-private response forced Wal-Mart to negotiate with the government. Wal-Mart offered to install first commandposts in their stores, to stop the looting which was not stopped by first responders. Moreover, this way Wal-Mart was able to distribute their goods more evenly and was able to assess the damage to the Wal-Mart stores. According to Abou-Bakr, this was beneficial to both sides, because goods were made available for exhausted responders, and Wal-Mart was able to protect its stores from looters, as the law enforcement was present. While this proves that the coordination and information sharing at the practical level was far from letting Wal-Mart being effective, let alone that the public sector regarded the private sector as effective, the executive level was not better off.

Wal-Mart tried to cooperate, but was met with refusal at several levels. They offered to send a representative of Wal-Mart to the DHS (FEMA), but this was refused. As Abou-Bark rightfully concludes, while the private sector owns more than 85% of the critical infrastructure in the United States, and thus also during Katrina, Wal-Mart was never counted as a valuable partner in the relief efforts. Exactly this lack of coordination and thus of mandate made that Wal-Mart became the first responder in the aftermath of Katrina. While they were denied access to New Orleans, had goods ready, were able to help the people, but met with refusal at several levels of government, Wal-Mart was not able to help the people as good as they could have because of the lack of coordination from the government (Abou-Bakr, 2013). Whether it was a lack of coordination, a lack of expertise or any other factor, the government lacked to give Wal-Mart and other private firms the mandate to be effective. This way, there is no possibility that the government even perceived Wal-Mart as being effective, as they did not get the chance to help.

In sum, it can be concluded that there was a severe lack of perceived coordination and information sharing from the government towards the private sector. The private firms were looking for access points into the relief efforts, but were categorically denied by government officials. The mandate that the government should have given to the private firms to assist never existed, and therefore did most definitely not contribute to the perceived effectiveness of the private firms. The lack of mandate, or transfer of mandate shows that the government did not

perceive the private firms as effective, as they would have given the mandate earlier to the private sector to assist during Hurricane Katrina.

Sub conclusion:

Hurricane Katrina shows that neither trust, perception and values or mandate was present in this case. Not because the private factor was not involved, or were not assisting in a way that was helpful. The factors did not contribute because they government did not give the private sector a chance to help. Foremost, the federal government lacked the trust and refused to give mandate to the private sector to enable them to assist in the relief efforts. The local government and community perceived the private firms as effective, but the federal government did not. According to those involved, the government officials do not take the capabilities of the private sector seriously. The lack of understanding to what extent the private sector can make an impact leads, obviously, to a lesser extent of perceived effectiveness. Therefore, from this case appears that neither of the factors identified contributed to the perceived effectiveness of the private actors, as the government simply did not acknowledge the assistance of the for-profit firms. It will be analyzed in the coming two cases to what extent this has changed over the years. Did the experiences during Katrina change the position and perception of the government towards the private sector, or not at all?

Case 2: Joplin, Missouri, Tornado (2011):

In the late afternoon of May 22, 2011, the city of Joplin, Missouri, was struck by a tornado. Rated EF5, the most intense a tornado can be rated; the mile-wide tornado flattened 30% of the city within 20 minutes. Over 158 people were killed and more than 1150 people were injured in a town of 50.000 people. Damage totaled up to \$2.8 billion, which makes it the costliest single tornado in the history of the United States. While the civil defense sirens sounded 20 minutes before the tornado struck town, many residents did not hear them. Over 7000 houses were destroyed, including the Regional Hospital. The effects of the tornado were devastating, but response was quick and effective (Smith & Sutter, 2013).

Praise in the days immediately following the tornado went out to the community. Many members of community, including the local government, faith organizations, NGOs and businesses were ready to help those in need. FEMA was often part of the groups that the community formed. Emergency response in the first day focused on the rescue of people and the removal of debris. Because Joplin, and the surrounding region, is often hit by tornadoes, FEMA had already systems in place and all the actors involved knew what needed to happen.

Overall, the emergency response was effective. Government officials, such as the

governor of the state of Missouri and President Obama flew in to assess the damage. According to Wilkins (2015), strong partnerships with nongovernmental and private organizations made that the community of Joplin, Missouri was able to recover faster than usual from the devastation that struck on May 22, 2011.

It is argued that there was a high level of perceived effectiveness during the 2011 Joplin, MO, Tornado. The reason the perceived effectiveness of the private sector is high was because the public sector acknowledged the private sector and subsequently successfully cooperated with the private sector in this case, as will be seen during the case study. The acknowledgement and cooperation subsequently led to a (perceived) positive outcome, which then led to a high level of perceived effectiveness. The acknowledgement of the private sector, and the subsequent cooperation, led to a high perceived positive outcome of the relief efforts. This had thus led to a high level of perceived effectiveness.

The business and thus private sector of Joplin, MO. was hit hard by the 2011 tornado. Still, they managed to play a significant if not very large role in the recovery of the community as a whole. This case study differs from the other two in the fact that a tornado is not foreseen. The two other cases, which are hurricanes, were predicted and could be anticipated to. The May 22 2011 Joplin, MO Tornado was not predicted, and it was a mere 20 minutes before impact that authorities knew the tornado was going to hit Joplin. Therefore, the case is primarily focused on the aftermath of the response, as before and during the storm nor the public sector, nor the private sector could do anything but wait until the tornado was gone.

Trust:

Because of the different nature of this disaster, it is hard to say whether the government had trust in the private actor. It appears so, as the private sector was heavily involved in the relief efforts. However, because of the nature and large scale of destruction, the government was forced to trust the private actor. This was the first time that the Whole Community approach was being put to use, which is *'an effort to incorporate the capabilities of the entire community and move beyond traditional, government-centric disaster management model'* (FEMA, 2011; 1). Out of this, it is implied that the government, or FEMA, trusts the private sector, but to what extent this influence perceived effectiveness is hard to determine, as the government had no other choice. As is frequently stated, the local and state were overwhelmed with the devastation of the tornado, and were therefore forced to trust the private sector in helping in the relief efforts. No government report, statement or document can be found that indicates to what extent the government perceives the private actor as competent, benevolent or sincere. However, from the

found literature can be derived that the government trusted the private sector. According to Wilkins (2015), FEMA released a study after the relief efforts were completed that stated that *'a multitude of instances of anticipated partnership with the private sector as well as several examples of private sector initiative were unanticipated'* (Wilkins, 2015; 133). Moreover, FEMA found that private initiatives were vital to the efficacy of response and recovery. Therefore, perceived effectiveness towards the private sector was definitely in place, but it cannot be implied that this was determined to any extent through trust, as there was no room for the government to decide whether to trust the private actors, as can be seen from the example above. Therefore, it can be concluded that no decisive answer can be given if trust contributed to perceived effectiveness in the case of the 2011 Joplin tornado. Partly because the disaster did not give much room for the government to decide whether to trust the private actor, but mostly because no report exists on the trust and perception thereof by the government towards the private sector.

Perception and Values:

Contrary to the factor above, trust, there is plenty of evidence that perception and values contributed to the perceived effectiveness as seen by the government. What appears from the literature and data is that most of the businesses in and around Joplin, MO., were also working hard to restore not only their own business, if that was affected, but also the community as a whole.

Several companies, such as Wal-Mart, Home Depot and other 'big box' stores were opening up their stores and were selling different goods to enhance relief efforts and to help the community get back on its feet. Businesses donated supplies and money to the recovery, but did more than that. They provided employees with salaries while they were unable to work. They accommodated employees whose houses had been destroyed or damaged beyond repair. Although this might have been a traditional task of the government in the past, it was also in the interest of the private sector to keep the community going and to provide for its employees. These are similar values as the government. Actually, the private sector is taking work out of the hands of the government here. According to Charlie David, a representative of the state of Missouri, these efforts were crucial in the recovery, as he stated that *'I can't applaud the big businesses enough for what they have done'* (Smith & Sutter, 2013: 174).

Another example of similar values is the fact that most companies were very quick in rebuilding and restoring the businesses, which is very much in the interest of the community. For example, Walgreens construction continued 24/7 so they could reopen their entirely flattened store within 84 days. Not only was this in the interest of Walgreens, which of course

primarily reopened to restore business, it was also very much in the interest of the community who could once again buy essential supplies (Stoneking, 2011). Because of the accommodating role of the City of Joplin, four months after the Tornado 69% over the destroyed business were reopened and back in business. By January 2012, out of the 525 destroyed or damaged businesses only 20 did not (yet) reopen. These efforts were praised by a large extent by a member of the local government: “by day three I encountered several businesses [that] already knew where they were going, and they were just trying to get things moved, and they were up very quickly. I think the first one to officially reopen was a pharmacy here in town, and that’s the Medicine Shoppe; when we called to check on him, he had already relocated, reopened, and was back in business, which is an incredible kind of service” (Smith & Sutter, 2013: 176). Other services, that proves that the similar values were in place during the relief efforts, which were also praised by the officials, were the sale of nontraditional items in stores. For example, a nearby Wal-Mart started to sell lumber to help rebuild housing (Smith & Sutter, 2013)

Overall, the example show that it was in the interest of both the government and private sector to rebuild the community as quickly as possible. Just as in the case of Katrina, these values are of course self-interest. The private sector cannot exist solely based on charity. However, during Joplin, values and perceptions of the private sector and the government aligned, and the above statements and examples clearly state that the government praised these efforts, thus perceiving the private actor as effective. Thanks to the private sectors efforts, the community was able to rebuild quickly, which can only be perceived as effective by the government.

Mandate:

During the 2011 Joplin, MO., tornado, the government was forced to cooperate with the private sector. Not only for the reason that the private sector had the resources and requirements to help, but also because the tornado struck unexpectedly. FEMA and other relief organizations were quick to respond, but they needed to coordinate with the private sector and share information in order to effectively be able to respond to the disaster.

According to Wilkens (2015), effectively responding to a disaster such as a tornado is difficult, as predictions of needs are hard to make. Therefore, public-private partnerships are necessary. In the case of Joplin, MO., a strong partnership between the government and the private sector made that recovery was fast and efficient.

For example, the Joplin City Council coordinated relief efforts with a private firm from Texas that had experience with public-private partnerships, and together with local construction companies made a plan to rebuild the town of Joplin (Woodin, 2012). Because of this public-

private partnership, the government could focus more on achieving long-term goals of recovery (Wilkin, 2015).

According to the official FEMA report, the relief efforts would never have been as successful without the help of the private sector. Through the Whole Community Approach, an effort from the new FEMA Director Craig Fugate, the private sector was more involved, which led to a much higher level of (perceived) effectiveness as thought in advance. An example of this higher level of perceived effectiveness comes from the FEMA report, in which is stated that using private sector social media outlets increased communications. The expansion of traditional means of communications to the use of Facebook and Twitter proved to be essential to the recovery. Facebook and Twitter were essential as an in-depth source for residents to get critical information about shelters, assistance and resources. A positive side effect was its use as a marketing tool, as it projected Joplin to the rest of the United States, and attracted donations and attention nationwide. Through the use of Facebook, the local government was able to post information. As Wilkins (2015) rightfully concludes: ‘The availability of social media to provide those answers at all times provided a service that traditional government communications simply could not provide’.

The coordination of the Joplin Area Chamber of Commerce is also noteworthy. According to FEMA, this particular instance has been a strong and caring leader in the local recovery, by keeping in contact with every business that was damaged and helping them as good as they possibly could (Stoneking, 2011).

Coordination does not work unless one can communicate. In the immediate hours and days after the tornado, several companies such as Sprint and the Empire District Electric Company worked together with the public officials to restore communications as quickly as possible. Sprint’s Emergency Response Team gave public sector officials satellite phones and wireless devices in order to ease the relief efforts. Companies also deployed representatives to the Emergency Center of the State of Missouri in order to coordinate effectively with the government. Within a week, most of the power was restored. This is indicative of a strong partnership between the state and private sector companies, as was also cited by FEMA director Craig Fugate (FEMA, 2011).

The transfer of mandate, or coordination, information sharing and accountability were also very much indicative of perceived effectiveness towards the private sector because of The National Level Exercise 2011. The NLE 11 of FEMA took place from May 16-19 2011 on the other side of the state of Missouri. The exercise was mainly carried out to test the newly formed Whole Community Approach, and to form strong relationships between several government

agencies and the private sector. Because of NLE 11, the agencies and private sector knew exactly what to do, contributing to the perceived effectiveness of the private sector (FEMA, 2011).

Overall, it can be concluded that the transfer of mandate, increased coordination from the government and information sharing contributed to the perceived effectiveness of the private sector. Again, not much is published or said from the government related to the effectiveness of the private sector, but from above examples can be derived that the perceived effectiveness is high. The public sector cooperated intensively with the private sector, and hardly any criticism can be found.

Sub conclusion:

Joplin, MO, is an entirely different disaster than the first case, Katrina. Public officials were not prepared for the disaster, but cooperation with the private sector was existent. To what extent trust was determinant of perceived effectiveness was difficult to determine as the officials were forced to cooperate with the private sector because of the suddenness of the disaster. However, the examples show that perception and values, and mandate did indeed contribute to the perceived effectiveness of the private sector as seen from the government. The Whole Community approach, which will also be heavily featured in the next case study, made that there were remarkable differences between the last big natural disaster, Hurricane Katrina, and the 2011 Joplin, MO., tornado. As FEMA stated, the Joplin tornado overwhelmed the capabilities of the City of Joplin and the State of Missouri. However, due to the Whole Community approach of FEMA to incorporate the private sector and the influence of the private sector in general in the relief efforts, the city was quickly back on its feet. As stated, the combination of public and private sector help proved to be useful, and much has been improved since Katrina (Watkins, 2012). However, in the next case, it will be assessed to what extent FEMA really improved in the end.

Case 3: Hurricane Sandy (2012):

Hurricane Sandy was the costliest storm of the 2012 Hurricane season in the United States, and was the third most costliest in the history of the country. Striking the densely populated Northeastern region of the United States, Sandy hit the coast of New Jersey and the City of New York on October 29, just north of the popular Atlantic City. Despite the forecasts that the storm would make landfall on the New Jersey Coast, the storm killed 160 people and caused an estimated \$71.4 billion of damage. In total, its effects were felt in over 24 U.S. States, but the most harsh effects were felt on the New Jersey coast and the region around and including the

City of New York (Rafferty, 2012). Extensive damage was caused in more other states, such as Virginia, Maryland, Delaware and Massachusetts.

What is most striking about this storm is the lack of criticism towards the government. President Obama, the Governor of New Jersey, Chris Christie and the Mayor of the City of New York, Michael Bloomberg did not receive harsh criticism for their actions, as happened with President Bush and regional and local officials during Katrina. Overall, the response before, during and after the storm was quite effective. For example, Christie ordered a mandatory evacuation of the outer New Jersey coast, limiting the number of casualties in that region. That the public viewed the overall response as effective can be derived from the approval ratings of the governor, whose approval rating increased by almost 20% a month later (Honan, 2012). The same goes for the governor of New York State, Andrew Cuomo, who asked for a pre-disaster declaration to have better access to federal assistance. Both these public officials were better informed and prepared than public officials had been in the past.

In general, FEMA, the American government and all other actors involved, including the private sector, were much better prepared and able to work together than was the case with Hurricane Katrina in 2005. Public transport, of utmost importance in the region was stopped and schools were closed. Cooperation between all actors proved to be very effective. This is proven by the fact that on Long Island alone over 100.000 residences were severely damaged or destroyed, but only 53 people died because of the storm (Crichton, 2012).

Governor Christie of New Jersey, a supporter of the Republican Candidate for the U.S. Presidential election, which were to be held within a week, praised President Obama for his efforts before, during and after the storm (Horsey, 2012).

In contrast to Katrina, FEMA did not receive criticism after the hurricane had passed. Overall, emergency relief efforts were very quick and effective, and important critical infrastructure such as electricity, water and gas were quickly restored in most areas. As over 2 Million households in New Jersey alone were without power, this is impressive. This shows that the government and the actors involved cooperated in an effective manner to minimize the effects of the storm as much as possible. Overall literature and reports show that the local, regional and federal governments were prepared, just as private actors. FEMA watched the storm closely from over four offices along the East Coast (Anderson, 2012), and the US government, including President Obama, knew what could be coming (Borenstein, 2012).

In short, it appears that the government, the private actors and even the population were more aware of the dangers associated with the storm, and were better prepared. This led

subsequently to a more effective relief response and more effective coordination between different actors, such as between the government and the private sector. Still, criticism on FEMA was widely spread. Again, it appeared that FEMA was not prepared for the disaster that was about to strike (Bucci et al, 2013).

Nevertheless, during Hurricane Sandy this thesis argues that the perceived effectiveness was considerably high. While FEMA apparently has learned, as will be seen during this case, there was still room for improvement during Hurricane Sandy. There was certainly acknowledgement of the private sector, and subsequent cooperation, but the overall (perceived) positive outcome was somewhat lacking. A reason for the latter might be the magnitude of the storm, or the large area that was hit by the storm. However, one can see that over time the acknowledgement and the coordination with the private sector have improved, leading to a more (perceived) positive outcome, leading to a higher level perceived effectiveness over time.

Two more factors make that Hurricane Sandy was different from Hurricane Katrina. These are FEMA's Whole Community Approach, already introduced in the previous section, and the Mayor of the City of New York Michael Bloomberg's Mayor's Fund to advance New York City. These two factors will be discussed in the mandate section of the case study.

The following case study will provide examples in which appears that the response during and after Hurricane Sandy could not differ more than that from the response during Hurricane Katrina seven years earlier. Whereas during Katrina the government was too late, unprepared and unwilling to cooperate, Sandy proved that the government was partly prepared, on time but most definitely willing to cooperate with other actors. One should keep in mind that in 2012 there was a different president, it was a different (more affluent) region and that Hurricane Sandy was more predictable than Hurricane Katrina, but it seems that the government learned from Katrina, as relief efforts were quite effective (Ladislaw, 2013). This might also be the result of the lessons learned from the 2011 Joplin Tornado.

Trust:

Institutional trust before, during and after Hurricane Sandy could be described as high. Several factors have contributed to the fact that the government had more trust in the private sector than during Katrina. It appears that the government, both federal and local, perceived the private sector to be benevolent, competent and sincere, as many crucial tasks during and after the storm were handed out or done in cooperation with the private sector.

For example, as follows from the department of Energy, the U.S Department of Transportation cooperated with the private sector to make sure that utility workers were able to

reach impacted areas. This means that private actors were plowing snow, or clearing fallen trees. While this may seem not as a task of great responsibility, this was the first time in the history of the United States that private utility trucks were classified as emergency responders, giving them several advantages over others (U.S. Department of Energy, 2013). This shows that the government trusted the private sector in doing very important tasks, contrary to Hurricane Katrina. In trusting the private actor, this example proved that trust contributes to perceived effectiveness.

Supported by a report of The Heritage Foundation Emergency Preparedness Working Group, businesses played a crucial role after Hurricane Sandy in helping to return communities to normalcy. After Sandy, the government trusted the private sector with this task. Not only do businesses provide services and goods that communities require to operate, they are also more efficient in distributing them. During Sandy, the government realized that energy, information technology and communications, all critical infrastructures, were primarily owned by the private sector. Moreover, in order to effectively perform relief efforts, one needs to trust and cooperate with the owners of critical infrastructure. During Sandy, the government encouraged the private sector by removing so-called 'red tape', or unnecessary regulations (Bucci et al., 2013). This appears to be a form of trust in the private sector, as restoring the critical infrastructure is a crucial task in relief response, and the government perceives the private actor as competent enough to carry out this crucial task.

Other than this, the government, especially in New York City, were very trusting of the private sector. Different from during Katrina, where private companies had to push for their goods being delivered, during Sandy, the government actively cooperated with the private sector to enhance the relief response. Several big companies, such as Airbnb, provided free housing for those in need after Sandy. This occurred after the White House had reached out to the company to provide shelter for those who need it. This proves that the White House or the government trusted Airbnb that it would provide shelter to those in need, as it regarded the private sector in this case as competent and benevolent. More companies did the same thing, such as Angie's List and WalkScore.com. They all provided services to the public, which were part of the relief response and traditionally part of the government. Since Sandy, The City of New York has developed and maintained relationships with several companies and was able to leverage these relationships in support of response efforts (Virtual Social Media Working Group, 2013). In addition to this, the government used the services of, among others, Google and Twitter in order to respond better to emergencies and improve relief efforts.

Overall, it appears that during Hurricane Sandy, both the federal government (The

White House, FEMA), and the local government (Mayor of NYC), trusted the private sector in carrying out important tasks, and thus perceived them as being effective in doing so. In contrast to the practices during Katrina, less criticism was heard during Sandy on the FEMA, as the relief response went more smooth and less trouble arose. During Sandy, private actors were allowed to contribute, as the government trusted them, as they were being perceived as competent, benevolent, or integer. This has led to a higher level of perceived effectiveness during the relief efforts of Hurricane Sandy.

Perception and Values:

Similar perceptions and values lead to a higher level of perceived effectiveness, at least the expectation is formulated that way. During Hurricane Sandy, possibly because of the higher level of preparedness, not much is written about the values and perceptions of the private actor, nor of the public sector. Especially the government, perhaps because of the failure of Hurricane Katrina, does not delve deep into the values and perceptions that they share with the private sector. However, from the literature some themes can be derived that indicate that there were several similar perceptions and values in place, and that those similar values and perceptions have led to a higher level of perceived effectiveness of the private sector.

The first example is the Innovation Team of FEMA. This team, made up out of people of various backgrounds, such as non-profit organizations, but also for-profit firms, governments and others was deployed to seek ‘creative’ problems for the survivors of Hurricane Sandy. Together, with the same mindset, the team came-up with several solutions for problems that arose after Sandy struck the Eastern seaboard of the United States. For example, the private sector and FEMA collaborated to set up a number of telephone systems, wireless networks and satellite terminals to provide NGOs, volunteers and other organizations, but also survivors with internet access. This shows that the private sector has the same values and perceptions as the public sector, namely to get the community and region back upon its feet. The fact that it comes from a FEMA report shows that also FEMA perceived the contributions of these private actors as effective, as it acknowledges the efforts of the private sector (FEMA, 2013).

Other examples are the donations of Home Depot, Johnson & Johnson and American Express, who showed that they cared about the community by donating funds and materials. These efforts were praised by the government as well (Bucci et al., 2013). Another example is an anonymous fast food chain in New Jersey, which handed out free food at over 32 locations throughout the state, together with disaster messaging. This effort was praised by the Federal Coordinating Officer of FEMA, stating that this action was just ‘one example of how essential the private sector is to a strong recovery effort’ (FEMA, 2015). Even years after Sandy,

recovery efforts are still ongoing. The private sector has contributed, voluntarily, to a program that teaches kids and students about disasters and emergencies, and how to prepare. According to FEMA-director Christopher Hartnett, ‘(the private sector’s) efforts have made a difference for thousands of residents and businesses across the state.’ (FEMA, 2015).

A last, but important example comes from the pharmaceutical industry. Pharmaceutical Research and Manufacturers of America (PhRMA), is the organization that represents the pharmaceutical industry in the United States. They created ‘Rx Response’ in the aftermath of Katrina, and put it into action after Hurricane Sandy. Rx Response ensured that federal and state officials had a single point of access to the entire pharmaceutical supply chain, to ease the supply of medicine and supplies. These efforts have been praised by the American government, such as the Secretary of Homeland Security Janet Napolitano. That the government or officials perceived these actions as effective can be derived from the fact that in the weeks and months after Sandy, public officials met with representatives of PhRMA to assess what could go better and to improve coordination in the future (PhRMA, 2012).

This shows that the private sector has most often-similar values and perceptions as the public sector. Moreover, the private sector also shows that it not only contributes out of self-interest, or for business continuity, but also because it wants to restore the community for those who live and work there. These are the same values and perceptions as FEMA has, and the foregoing examples show that FEMA perceives the private actors as effective. Therefore, in the case of Hurricane Sandy, it can be concluded that the similarity of perceptions and values lead to a higher level of perceived effectiveness, as FEMA and the American government continuously praise the private sector.

Mandate:

Whereas during and after Hurricane Katrina the federal government, DHS and FEMA did not leave much space for the private sector to get involved and accept and acknowledged the proposed help of the private sector. It is apparent that things have changed after the 2011 Joplin tornado. Two big factors play a role in the fact that mandate, or the transfer of mandate from the public sector to the private had more influence on the perceived effectiveness: FEMA’s Whole Community approach and the Mayor’s Fund to Advance New York City. These two practices, established before Hurricane Sandy hit the East Coast, have proven to be of great importance concerning the involvement of the private sector in Hurricane Sandy. They provided the much needed coordination, information sharing and accountability that was lacking during Hurricane Katrina.

However, not only these two approaches facilitated the involvement of private actors in

Hurricane Sandy. For example, high government officials, such as the Secretary of Energy, were in constant contact with the CEO's of utility companies and other companies to restore electricity. The involvement of high officials facilitated and coordinated the interaction between the public and private sector. Moreover, these interactions led to placement of private sector staff at the FEMA National Response Coordination Center. More companies offered assistance related to utilities and emergency response to assist utilities and customers in the area that was struck by Hurricane Sandy.

An order from President Obama that he would have zero tolerance for 'red tape', or bureaucratic nonsense, was of beneficial effect. Through this waiver, both the public and private sector could operate more efficiently in the areas that needed relief efforts, and cooperation and relief efforts were more successful with immediate effect (U.S. Department of Energy, 2013).

Especially in New Jersey, the state where Hurricane Sandy made landfall, FEMA actively sought the help of the private sector, through the Private Sector Office of FEMA. As stated earlier, utility companies successfully contributed to the relief efforts. But also small businesses were involved in the relief efforts. For example, the New Jersey Association of Realtors worked together with FEMA to advise home and business owners on how to move on after Hurricane Sandy. According to the Chief Executive Officer Jarrod Grasso, this was a successful move: "To have the opportunity to interact directly with FEMA representatives, ask questions and get answers has helped not only members, but their clients as well" (FEMA, 2015).

In addition, two FEMA programs, the Private Sector (discussed earlier) and the Federal Disaster Recovery Coordination Group formed the Insurance Industry Roundtable, through which a public-private partnership was established that explored how to enhance the disaster assistance process. Several issues were identified, which were sent to the White House Hurricane Sandy Rebuilding Task Force (FEMA, 2015).

This is all part of the Whole Community approach of FEMA. While the concept is not new within FEMA or the government (Graham, 2015), FEMA published a document in 2011 in which director Craig Fugate stated that: 'Government can and will continue to serve disaster survivors. However, we fully recognize that a government-centric approach to disaster management will not be enough to meet the challenges posed by a catastrophic incident. That is why we must fully engage our entire societal capacity'. Out of experiences and criticism on the failures of FEMA, an approach was designed that involved more than just the government, such as NGO's, communities and businesses. Benefits would include a 'more informed, shared

understanding of community risks, needs, and capabilities; an increase in resources through the empowerment of community members; and, in the end, more resilient communities' (FEMA, 2011). The concept was first put to use during the 2011 Joplin Tornado, but was still in its development phase. Therefore, Sandy was the first natural disaster in which the Whole Community Approach could be evaluated.

Through this Whole Community approach, Twitter for example provided support during Sandy by making their platform more accessible for FEMA, the American Red Cross and Federal Government. Infrastructure providers shared information with the government, and vice versa. This way, the availability of resources was mapped efficiently.

Through the National Business Emergency Operations Center FEMA coordinated critical information and resources from private companies to the affected communities. While, according to the private sector, communications could be improved, there is world of difference in mandate between Hurricane Katrina and Hurricane Sandy (FEMA, 2013).

The next approach that made this difference possible is the personal effort of the Mayor of New York, Michael Bloomberg, through the Mayor's Fund to Advance New York City. This Fund, although primarily focused on partnerships with NGOs, has proven indispensable during Hurricane Sandy. The fund focusses on public-private collaborations that facilitate the needs of the most underserved communities. During Sandy, this was widened to the whole city. For example, the City cooperated with pharmacies to widen the distribution of medicines and supplies. Through the Fund, several for-profit firms were able to distribute blankets, baby supplies and such. Through cash donations the upkeep for shelters and cleaning crews were paid, and over 330.000 hot meals were paid for. However, it was not only immediate relief that was made possible through the Fund. For instance, mold awareness and other services for homeowners were made possible through the Fund, helping those in need to rebuild and assess damage, taking away the costs (Gibbs & Holloway, 2013). Later, legal assistance to those who could not afford that was taken care of, and counseling was provided (Freedman Consulting, LLC, 2013).

These examples show that increased cooperation with the private sector, increased information sharing (through for example Twitter) but also resolving accountability issues through operating through government established funds was working during Hurricane Sandy. The government gave mandate to the private sector to help in the relief efforts, and coordinated these efforts in such a way that they were perceived as effective. Indeed, one could argue that the particular actions that were carried out could be more effective, but that is not the point of this case study. It is important to note that contrary to what happened during Katrina, the

government fully gave mandate to the private sector without any doubt, and cooperated on all levels with corporations and firms. Therefore, one can say that in the case of Hurricane Sandy, mandate, or the transfer of mandate has positively contributed to the perceived effectiveness of the private sector as seen from the government.

Sub conclusion:

From the case study appears that a great deal has changed in the course of seven years. As earlier stated, there are more differences than just the time-period, but the difference is outstanding. A statement from Trainor, assistant professor with the Disaster Research Center and the University of Delaware says it all: *“My impression is that this is a different agency than we’ve seen over the last decades, one that post-Katrina had lost a lot of credibility”* (Vogel, 2012). FEMA did a better job in the relief efforts during Hurricane Sandy. Whether this is because of the increased cooperation of the private sector is not the subject of this research. What does stand out though is that the factors trust, perception and values, and especially mandate significantly contributed to the level of perceived effectiveness. Contrary to Hurricane Katrina, in this case, the private sector was definitely perceived as effective, and this has been confirmed multiple times. The private sector and its abilities were taken seriously, incorporated and acknowledged. To what extent this can be regarded as effective takes a different research, but on basis of this case study, one can conclude that the government perceived the private sector as effective.

Chapter 4: DISCUSSION

From the literature and theory existing in security networks and emergency networks, three factors have been identified that are believed to be of influence to the perceived effectiveness of private actors as seen from the government. Out of this framework, three expectations were developed around the factors that were identified. Trust, perception and values, and mandate were researched in three case studies from the United States. This section will explore and critically analyze the results of these case studies. Moreover, it will provide an answer to the main research question: “What factors determine the perceived effectiveness of private actors in emergency management networks as seen from the government?”

From the theory follows that trust, perception and values, and mandate are possible factors that influenced the perceived effectiveness of the private sector as seen from the government. As appeared from the literature, there is a rising trend of privatization of security and of emergency networks. This is also reflected in the case studies that have been explored. While during Katrina the presence of the private sector was marginalized and not acknowledged, during the subsequent disasters in Joplin and Hurricane Sandy the private sector was more involved and acknowledged. While this is indicative and in line with the predictions of the theory, it is also slightly inconsistent with the theory, as one would expect that public-private partnerships were in place during Katrina and that they would have been (perceived as) effective. Therefore, the first case study was not indicative of the factors that have been explored in the theoretical section. This does not mean however that the case study is obsolete. It provides valuable information relating to the research question.

While it appeared that in the case of Katrina neither trust, perception and values nor mandate contributed to the perceived effectiveness of private actors on the federal level of government, examples show that at the local government, trust was in place and contributed to the level of perceived effectiveness. The same can be inferred from the analysis of perception and values. The perceptions and values of the government and those of the private sector aligned, which according to theory should lead to a higher level of perceived effectiveness. However, it did not, as no higher level of perceived effectiveness can be observed because of these similar perceptions and values.

A different judgement follows from the analysis into mandate. There was a severe lack of mandate, which in could hardly have contributed to the level of perceived effectiveness. The lack of coordination and the sharing of information made it impossible for the private sector to

be perceived as effective, as they had no means of effectively contributing to the relief efforts. Therefore, it can be argued that during Katrina, trust, perception, and values did not contribute to the actual perceived effectiveness because the federal government was not able to recognize that the private sector was effective. Whether this was because of the lack of self-reflection, because of the refusal to admit that the federal government (FEMA) was failing or because of other reasons cannot be derived from this case study.

More in line with the theoretical framework are the second and third case study. The 2011 Joplin, MO Tornado and Hurricane Sandy showed that both mandate, and perception and values are influencing perceived effectiveness. In the case of Hurricane Sandy, so was trust. Clearly, the case studies show that, in line with the theoretical framework, the success of network members lead to the network to be perceived as effective. During Katrina, much criticism arose, as the government was unable to cooperate with the private sector, as they did not perceive the private sector as effective. The overall response failed. However, several years' later, public private coordination was in place and the overall perceived effectiveness of the response was high, and as the examples show, this was partly due to the perceived effectiveness of network members such as the private sector.

Therefore, it can be concluded that the involvement of the factors have contributed to a certain extent to the perceived effectiveness of the private actors. It will now be seen if each factor has contributed to the perceived effectiveness through the evaluation of the expectations.

It follows from Hurricane Katrina and Sandy that to a certain extent trust from the government towards private actors might lead to a higher level of perceived effectiveness. During Katrina, trust at the federal level was non-existent, but the private sector was being trusted at the local level, which led to more perceived effectiveness. During Sandy, FEMA trusted the private sector, which led to a higher level of perceived effectiveness. No conclusion can be derived from the 2011 Joplin Tornado, as trust did not play a considerate factor in the public-private partnership in that emergency. What follows from the case study though is that trust is mainly not present at the federal level, but is usually present at the local level. Therefore, trust does only partly lead to a higher level of perceived effectiveness as the federal government has not always been willing to trust the private sector. This distinction of trust between local and federal government is interesting. What reasons are there for the federal government to be less trusting of the private sector than the local government? An interesting finding that should be researched more.

Out of the 2011 Joplin Tornado and Hurricane Sandy appears that similar perceptions and values made cooperation easier. Because cooperation was easier, the perceived effectiveness of the private sector was also higher. In the two aforementioned cases, it also appears that similar values lead to more desirable outcomes, as the overall response was perceived as more effective. This leads to a higher level of perceived effectiveness as well. In the case of Katrina, similar values and perceptions are not easily testable, as the overall perceived effectiveness was not present. However, it is the case that in general, values and perceptions were similar. Despite this, it has led not to an increase in perceived effectiveness. While this is surprising on the one hand, it is also expected on the other hand, if one relates this factor to the third factor, mandate.

Concerning the third and last factor, mandate, it was expected that the more mandate a government would give, the more a private actor would be perceived as effective. During Hurricane Katrina, the lack of mandate at the federal level made that the private sector was not perceived as effective. In Joplin, MO, the full mandate that was given through the Whole Community Approach by FEMA and the NLE 11 exercise just before the tornado made that the private sector was fully incorporated in the relief efforts. This made that the relief efforts of Joplin, MO, were successful. Not only were they successful, it was also one of the fastest relief operations ever in the history of the United States for an emergency of this size. Despite the suddenness of the disaster, the incorporation of the private sector made that the relief efforts were successful and through that, the private actor was perceived as effective and praised. Lastly, during Hurricane Sandy a year later the private sector was again more involved than during Katrina. While it was a different disaster than Joplin, and FEMA, DHS and the federal government were more prepared, the private sector was heavily called upon and joined with the public sector to enhance the relief efforts. This was (mostly) successful, and thus made that the private sector was perceived as effective, as evidence shows.

From the analysis appears that it can only be said with certainty that mandate, or the transfer of mandate fully determines the perceived effectiveness of private actors from the perspective of the federal government. Once the local government is taken into account, trust and perception and values are determinants of the perceived effectiveness of private actors too. However, this research question focused on the federal government. Thus can be concluded that only mandate is a determinant of perceived effectiveness of the private actor in emergency management networks. Trust, and perception and values are determinants to a certain extent, but more research should be carried out to what extent these are determinants of perceived effectiveness. The failure from the federal government of the United States to incorporate,

acknowledge and accept the help of the private sector made that the latter were unable to be perceived as effective in many instances. Self-interest (Provan and Milward, 2001) appears not to be of influence to the perceived effectiveness of the private actors. Not in any way does it seem that the governments perceive the private sector as less effective because of the reason of self-interest or self-benefit. However, it cannot be ruled out that this is a reason the government is reluctant to perceive the private actor as effective.

The perception of the federal government has changed over time, especially after the failure of initiative during Katrina. Through programs from FEMA and the Federal government such as the Whole Community Approach and less 'red tape', the government is more willing to coordinate and share information with the private sector, and through that process, perceived the private sector as more effective. However, trust, perception and values appear to have influence in some cases, but not enough to argue that either trust or perception and values are determinants of the perceived effectiveness and lead to higher levels of perceived effectiveness. What can be inferred from this research is however that it is not the private actor that is responsible for the level of perceived effectiveness. In line with the literature, as argued for by Caparini (2006) and Rudner (2009), the private sector becomes a more and more important actor in emergency management networks. Its effectiveness has been proven since Hurricane Katrina and long before that.

It appears that the perceived effectiveness is predominantly determined by the government in these cases, as follows from the literature and from the selected case studies that the private sector is already effective in emergency management. This research therefore confirms to the literature, as it appears that the private sector is contributing largely to the emergency management networks, but the government fails to perceive them so. Thus, it is up to the government to adjust, acknowledge and perceive the private sector as effective. It may be trust and similar perception and values that contribute in some cases, but it is most definitely above all (the lack of) mandate that determines the level of perceived effectiveness of the private actor within emergency management networks in the United States.

CONCLUSION:

This research has contributed through document analysis to the debate on the (perceived) effectiveness of the private sector in emergency or disaster management networks. It has illustrated that the perceived effectiveness of private actors within emergency management networks and security networks in general is an under-researched phenomenon. This thesis has provided an analysis of three case studies to understand what factors determine the perceived effectiveness of the private sector as seen from the government in the United States. Through an extensive literature review and a theoretical framework, three natural disasters in the United States were analyzed. It was researched to which extent three factors (trust, perception and values, and mandate) identified in the theoretical framework were present in the case studies. Three expectations were formulated. Out of these, only the last one was completely confirmed, while the remaining two expectations could only be partly confirmed. It was found that particularly mandate was a determinant of the perceived effectiveness, while trust, perception and values were to a lesser extent of influence, especially at the federal level.

Limitations and Recommendations for Future Research

While the research has contributed to the growing, yet limited, amount of literature on emergency management networks and private actors, several limitations were met. First, the methods used in this thesis were limited, as the research only focused on document analysis. The use of interviews and/or surveys might unveil more relevant data, which cannot be found in government reports or academic literature. For example, the opinions of those in an operational management role are relevant too, but have not been researched.

Secondly, bias is not ruled out in government reports. Furthermore, the use of merely three factors has confined the research to a certain degree. While the factors were identified in the literature, other factors might be of equal or more importance.

Lastly, the use of three large disasters has also influenced the research in a certain way. The large emergencies or natural disasters have had plenty of attention, from the government, the media and the academic domain, thus logically also attracting more criticism. Smaller emergencies may have had a similar cooperation between the public and private sector, but do not attract that much attention nor criticism, and are therefore valuable, but harder to research.

Further research should incorporate more factors that determine perceived effectiveness. While this research has primarily focused on the federal level, research into the role of the local government is also of importance. Furthermore, the use of government documents validated the

research, but also limited the information that was available. As appeared during the research, the government was restrictive in acknowledging and addressing the efforts and importance of the private sector, which may have biased the information derived from the governmental documents. A more important and interesting research might therefore be to why the government is so reluctant in accepting, acknowledging and addressing the private sector as equal partners in emergency management networks.

As Waugh Jr. and Streib (2006: 131) stated: '*collaboration is a necessary foundation for dealing with both natural and technological hazards and disasters and the consequences of terrorism*'. It is now up to the government, the Department of Homeland Security and the Federal Emergency Management Agency to realize this, start perceiving the private sector as effective, develop this into policy and respond to coming emergencies - together with the private sector.

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