

WHAT MAKES A NATIONAL SECURITY PUBLIC SECTOR-PRIVATE SECTOR
PARTNERSHIP EFFECTIVE? A DELPHI STUDY

by

Darryl Ray Williams

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PARTNERSHIP EFFECTIVE? A DELPHI STUDY

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ABSTRACT

The purpose of this qualitative study using a modified Delphi method was the development of a framework for a national security public sector-private sector partnership (NSPPP) created to effectively address major disasters or national security crises. Prior to this study, there was no scholarly research designed to identify and prioritize key performance and result indicators of an effective NSPPP. This Delphi study leveraged a population of public sector and private sector leaders who have been or are currently members of NSPPPs. The modification of the Delphi was using information from the literature review to craft Round 1 questions, versus using Round 1 to gather the data required to craft follow-on questions. Questions were a combination of open-ended narrative, multiple choice, Likert scale, and ranking questions. NVivo and SPSS tools were used to analyze the data. Consensus of the key indicators occurred at the end of Round 3. The results of the study were the identification of three NSPPP key performance indicators: leadership, information transparency, and value to all partners. The key result indicators were goals and objectives, funding, and authorities. The identification of a time component to the NSPPP response was a critical finding. This finding impacted the key indicators and required the creation of two frameworks, one for a crisis response NSPPP and one for a long-term preparatory response NSPPP. The significance of this study's findings and resultant frameworks provide an important foundation for follow-on research efforts, changes to national level policy, and creates a bridge between the public sector and private sector necessary to increase national security and resilience.

DEDICATION

I dedicate this dissertation to my wife Marie and my son Jared. This dissertation represents a journey lasting four years. However, pursuit of a doctorate degree is not a journey accomplished alone. Although this dissertation lists me as the author, it would not have been a reality without the support and assistance of my family. Over the four-year period, Marie went many days and weeks without a husband who could focus on the day-to-day responsibilities of raising a family. In those times, she was a pillar of strength and a stalwart that kept the household running efficiently and provided the peace and quiet I needed to finish my journey successfully. Marie created and nurtured an environment that allowed her unconditional love to overwhelm my feelings of guilt for not being an attentive husband and father. Although he was on his own scholastic journey, there were times when Jared needed me, but I was too consumed with research, writing papers, and trudging through critical reviews. However, Jared had the uncanny ability to know when I needed to step away from the research and unwind with humorous banter or a great video game. To both Marie and Jared, this dissertation is as much your accomplishment as it is mine. I am truly blessed to have you both in my life.

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Second, this dissertation would not have happened without the mentoring and encouragement of my dissertation chair Dr. Richard DeParis. On two separate occasions, I had determined to end the journey. The academic politics and procedures wore me out and the thought of continuing the insanity was not an option. However, Dr. DeParis was able to recognize my intent to quit and with humor, integrity, and encouragement, he was able to renew my fire, fervor, and focus. He was able to convince me that the light at the end of the tunnel was not an approaching train, but a well-lit finish line. Thank you Dr. DeParis.

A dissertation is only as good as the committee overseeing the development and defense of the document. Dr. Toni Greif and Dr. Gail Zwart are committee members without equal. As I look back at the first versions of this dissertation, I am amazed that they not only used such kind language toward me, but also continued on my committee. They were always kind, but firm in identifying problems, asking critical questions, and pointing me in the correct direction. Thank you both.

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Chapter 1

Introduction

The United States is unprepared to effectively respond to national security crises that produce mass casualties (e.g., strategic-level terrorist attack, widespread natural disaster, pandemics, etc.) or cripple the United States ability to provide for the safety and welfare of its population (e.g., cyber-attack on national power grid, etc.). For these types of national security crises, the United States has extensive strategic response plans on paper; however, they do not have the health and first-responder resources necessary to implement the plan (Donnellan, 2010). The best that the government can expect to accomplish is to contain the crisis versus responding to those affected by the crisis (Donnellan, 2010). Unfortunately, the current national economic crisis is a contributing factor toward the United States' lack of disaster preparedness (Pines, Pilkington, & Seabury, 2013). In the period from 2003 to 2007, the year preceding the current economic crisis, United States' funding for disaster preparedness amounted to more than \$20 billion. However, beginning in 2008, disaster preparedness funding dropped to a pre-sequestration (2013) amount of approximately \$4 billion (Pines et al., 2013).

With more than 85% of the United States critical infrastructure owned by the private sector (Busch & Givens, 2012), any response to an event of the magnitude of Hurricane Katrina, Hurricane Sandy, and the attacks on September 11, 2001 requires effective national security public sector-private sector partnerships (NSPPP) (Federal Emergency Management Agency, 2013). As President Barack Obama (2010b) stated in the *National Security Strategy*, the effectiveness of public sector-private sector partnerships (PPP) directly equates to the resilience of the nation to survive a national crisis. The Federal Emergency Management Agency (FEMA)

identified effective and coordinated NSPPPs as critical to address a natural disaster of the level of Hurricane Sandy (Federal Emergency Management Agency, 2013).

Although effective NSPPPs are critical for the United States to respond and survive a strategic-level crisis, there is little scholarly literature regarding partnerships at the national security level (Busch & Givens, 2012). A comprehensive literature review of numerous academic databases and a review of secondary sources cited in primary documents focused on NSPPPs found no scholarly research that identified the critical indicators of a NSPPP. As described in Chapter 2 of this study, there were peer-reviewed documents that anchored follow-on research to works identifying trust as a key indicator of a NSPPP. However, the underlying sourced material (e.g., facilitated workshops, official government policy papers, opinion, etc.) lacked the academic rigor required to withstand peer review or critical scrutiny. This modified Delphi study used a qualitative approach to identify and prioritize the key indicators of an effective NSPPP. The identification and prioritization of NSPPP key indicators led to the development of two frameworks that characterizes an effective NSPPP. National security leaders can use the resultant frameworks to create effective NSPPPs necessary to respond to or prepare for national level crises.

Background of the Problem

Much has been written concerning the devastating effects of a national security crisis, be it man-made terrorism or natural disaster. For example, not only did the terrorists kill more than 3000 people in their attacks on September 11, but they also created a negative economic impact as high as \$77.0 billion (Werling & Horst, 2009). When combining the statistics associated with the September 11 attacks to those of the resultant wars in Iraq and Afghanistan, the personal toll

is much higher and the economic consequences total more than \$4 trillion (Bilmes, 2013). Hurricanes Katrina, Rita, and Wilma totaled \$103 billion (Financial Management, 2013). Hurricane Sandy created an economic toll of \$50 billion, which does not include the impact on human life and livelihoods (Newman, 2012). A pandemic influenza outbreak could kill more than 1.9 million people and have an economic impact from \$200 billion to \$800 billion (Garrett, 2008). The consequences of a strategic cyber-attack against a critical United States infrastructure could result in complete paralysis of the nation (Panetta, 2012).

To address these and other national security crises, NSPPPs were/are formed (Holshek, 2010). One of the stated purposes for the creation of the Department of Homeland Security (DHS) was facilitating the creation and oversight of NSPPPs (Busch & Givens, 2012). Examples of DHS NSPPPs include the Critical Infrastructure Partnership Advisory Council (CIPAC), National Cyber Security Alliance (NCSA), Customs-Trade Partnership Against Terrorism (C-TPAT), and Screening Partnership Program (SPP) (Busch & Givens, 2012). Private organizations like the Business Executives for National Security (BENS) have initiatives designed to create and develop effective NSPPPs (BENS, 2007).

The Robert T. Stafford Disaster Relief and Emergency Assistance Act is the capstone document for a federal response to major disasters and emergencies (Lucie, 2014). The Stafford Act (United States Congress, 2013) provides minimum criteria for an effective federal response to major disasters. An effective response to a major disaster must:

- Alleviate the physical damage of the disaster
- Address the loss of critical services and loss of life
- Mitigate the hardship and suffering to the populace affected by the disaster event.

The National Response Framework (NRF) (2013) is the authoritative guide on how the federal government executes the Stafford Act in response to a major disaster. The NRF specifically advocates an NSPPP approach to a major disaster response. The NRF also adds fidelity to the Stafford Act effective federal response objectives, which will be the basis for this study's definition of an effective NSPPP. For the purpose of this study, an effective NSPPP is an entity created in response to a declared major disaster or the preparation for a future crisis impacting United States national security.

Regarding a major disaster response, the NSPPP needs to rapidly stabilize the affected area and create a stable and secure environment required to transition the area from crisis to recovery. Rapidly stabilizing the affected area includes, but is not limited to, saving lives, safeguarding the environment, and ensuring that the affected populace has their basic human needs met. Creating a stable and secure transition to recovery includes, but is not limited to, restoring basic infrastructures and services and ensuring the community can once again function on its own. Regarding the preparation for a future crisis, the NSPPP needs to identify a solution that addresses resources, authorities, and responsibilities of all partner members. Ultimately, the ineffectiveness of NSPPP's ability to respond to a national security crisis makes the United States more vulnerable to terrorism, escalates the catastrophic effects of a large-scale natural disaster, and lowers the resiliency of the nation (Flynn, 2009).

Statement of the Problem

The general problem is that most NSPPPs, created to address strategic acts of terrorism, large-scale natural disasters, or the preparation to address future national security crises are not

effective when graded against criteria contained in the NRF and the Stafford Act (Clinton, 2011; Donnellan, 2010; Lewis, 2011). As defined by the Stafford Act (2013), an effective NSPPP will:

- Alleviate the physical damage of the disaster
- Address the loss of critical services and loss of life
- Mitigate the hardship and suffering to the populace affected by the disaster event.

Hurricane Sandy was one of the largest Atlantic storms on record. Damage to housing directly affected 174,000 people, 8.5 million lost electrical power, and 162 people lost their lives. In an after-action report (2013), FEMA report identified numerous areas where their response did not meet the Stafford Act definition of an effective response. For example, the NSPPP created to address wide-spread loss of electrical power lacked the operational capacity to rapidly restore power to the 8.5 million people. Of the FEMA NSPPP response plans created pre-Hurricane Sandy, 64 percent had no inclusion of regional hurricane plans. In addition, FEMA estimates that 2500 full-time FEMA employees are needed to respond to a disaster the size of Hurricane Sandy. However, only 2221 employees deployed. Of their augment force, FEMA only had 5 percent of reservists available. Of the contracted support, only 57 percent received notification to deploy. The remaining 43 percent reported that their deployment communication system was ineffective. Because of these and other issues, FEMA graded NSPPPs created to address Hurricane Sandy as an area for improvement.

According to the Commission of WMD Proliferation and Terrorism Report Card (2010), the grade of the United States preparedness and capability to respond to a bioterrorism attack is an “F.” Three issues warrant this grade. First, the United States has no national plan to create a NSPPP in response to a mass casualty biological event. Second, the United States lacks the

operational capability to effectively respond to a mass casualty biological event. This includes a lack of information sharing, technology needed to rapidly detect the event, enough medical capacity to treat the casualties, and inadequate clean-up capacity. Third, The Department of Homeland Security estimates that \$17 billion is required over a five-year period to develop and produce the vaccines needed to address a mass casualty biological event. However, the United States appropriated less than ten percent of that amount for vaccine development, creation, and stockpiling.

In his testimony before the Senate Appropriations Committee (2013), General Keith Alexander, commander of the United States Cyber Command, scored United States preparedness to address a strategic cyber-attack as three on a ten-point scale. This low grade is in response to a lack of cyber legislation that will provide a cyber NSPPP with adequate resources and capabilities while adequately protecting civil liberties and privacy. General Alexander called upon Congressional and Administration leaders to craft the necessary legislation.

Clinton (2011) concluded the current NSPPP approach has the potential of negatively affecting national security, resulting in a tragic loss of life and property. A 2009 White House policy review of NSPPPs concluded that the current approach to a national security crisis is ineffective and called upon governmental and scholarly institutions to examine alternative approaches to forming effective NSPPPs (Executive Office of the President, 2009). However, after five years, there is no consensus among governmental and scholarly institutions regarding a recommended alternative approach. In many cases, the recommendations are contradictory. For example, legislation submitted by the United States Senate (2012) advocated an approach that included more governmental regulation. However, a group of private sector associations

published a white paper arguing against government regulation and recommending the current approach with more industry incentives (Business Software Alliance; Center for Democracy & Technology; U.S. Chamber of Commerce; Internet Security Alliance; TechAmerica, 2011). The Center for Strategic and International Studies (CSIS) proposed two possible approaches: increased government regulation with associated industry incentives, and contractually bound NSPPPs (Lewis, 2011). However, each government and scholarly source caveated their recommended alternate approach with a call for additional research, more strategic planning, and increased dialogue to understand differing perspectives and complexities (Clinton, 2011).

The specific problem is there is no scholarly-derived framework necessary to create an effective NSPPP (Fry-Pierce & Lenze Jr., 2011). Critical to the creation of this framework is the identification of key result and performance indicators (Shabaninejad, Mirsalehian, & Mehralian, 2014). For example, a framework that identifies the key result and performance indicators is critical to determine if a NSPPP leader-candidate has the capability to create an effective NSPPP (Shabaninejad et al., 2014). A key result indicator shows how well an organization meets stated goals and objectives. For this study, the initial NSPPP goals and objectives originate from the NRF and Stafford Act. The framework must also include key performance indicators. For a NSPPP, key performance indicators enable an organization to accomplish stated goals and objectives. Presently, no scholarly research exists that identifies the key performance indicators of a NSPPP.

This study addressed both the general and specific problems by identifying and prioritizing key result and performance indicators of an effective NSPPP and using these indicators to create a framework of an effective NSPPP. DHS can leverage this study to create

and empower a NSPPP that effectively stabilizes an incident area, creates an environment that fosters an efficient transition to recovery, or adequately prepares the nation to address a future national security crisis. By accomplishing these objectives the NSPPP can ensure that lives are saved, the community is made functional, and the United States becomes more resilient.

Purpose of the Study

The purpose of this qualitative study using a modified Delphi method was the development of an effective NSPPP framework via the identification and prioritization of NSPPP key indicators. There is a gap in scholarly research regarding the identification of key indicators of an effective NSPPP, making the Delphi method appropriate. The Delphi method leverages unique expertise, in an iterative process, to discover knowledge previously unknown (Skulmoski, Hartman, & Krahn, 2007).

This Delphi study leveraged a population of public sector and private sector leaders who have been or are currently members of NSPPPs. These leaders included chief executive officers (CEO) of Fortune 500 companies; members of Presidential, Congressional, and Cabinet-level advisory boards and committees; and senior leaders of United States agencies whose responsibility is to address national level crises. The leaders resided throughout the United States; however, an online survey tool allowed all members to participate without having to travel to a central location. The Delphi panel consisted of 18 members.

The results of the study were the identification and prioritization of NSPPP key indicators and the development of two frameworks that characterizes an effective NSPPP. These results provide an important foundation for follow-on research efforts, changes to national level policy,

and creates a bridge between the public sector and private sector necessary to increase national security and resilience.

Significance of the Study

This study was significant for several reasons. First, prior research has yet to identify the key indicators that make a NSPPP effective. The identification and prioritization of NSPPP key indicators may validate current research that has leveraged non-scholarly sources. It may also empower emerging research in national security partnerships to include predictive analysis of components like trust (Raza, Hussain, & Hussain, 2012). Second, this study represents fundamental research from which senior United States Government leaders can create NSPPP charters and associated policy, providing the NSPPP with the best opportunity for immediate effectiveness. Third, this study provides foundational knowledge to both public and private sector leaders that is required to ensure accountability of the NSPPP Executive Director or governing oversight board. Fourth, the resulting two frameworks provide United States senior leaders with a tool that can measure the effectiveness of the NSPPP or predict the probability of success of a NSPPP (Shabaninejad et al., 2014).

Significance of the Study to Leadership

United States national security leaders need the findings from this study. In 2010, President Barak Obama directed the United States Government via the *National Security Strategy* to create or enter into strategic-level partnerships with public sector and private sector organizations. He expected these partnerships to provide a level of ingenuity and innovation to the government's addressing of national security issues (Obama, 2010b). Secretary of Defense Gates also issued a similar directive to the Department of Defense (Holshek, 2010).

Unfortunately, a trend item in most NSPPP disaster after-action reports or current assessments is a failure of leadership. For example, a major thread through all the issues in the FEMA Hurricane Sandy After-Action Report (2013) was an unengaged, unprepared, FEMA senior leadership corps. The FEMA report specifically states that most FEMA plans had little to no involvement by senior leaders who would ultimately coordinate the response effort. According to the Commission of WMD Proliferation and Terrorism Report Card (2010), the grade of the United States preparedness and capability to respond to a bioterrorism attack is an “F”, which corresponds to a lack of leadership. The report card defines a grade of “F” as “no attention or action taken” (p. 5) on the part of senior NSPPP leadership. The Government Accountability Office (2009) graded current NSPPPs as ineffective because of a lack of cyber NSPPP response planning on the part of Department of Homeland Security leadership. General Keith Alexander (2013) highlighted the need for cyber NSPPP leadership to create an environment that fosters trust in the United States populace.

Although the literature indicates awareness and good intentions to address the underlying problem in NSPPPs, the results and initiatives arising from these good intentions are ineffective and the United States continues to be unprepared (Fry-Pierce & Lenze Jr., 2011). United States senior leadership, private sector leadership, and those responsible for disaster preparation, recovery and relief need awareness of NSPPP effectiveness criteria so that effective policies and regulations can be drafted. This study provides the necessary awareness.

Nature of the Study

To provide the necessary awareness to national security leaders, this qualitative study used the modified Delphi method to develop two frameworks that characterizes an effective

NSPPP. The foundation of the frameworks was Delphi panel consensus regarding the identification and prioritization of NSPPP key indicators. These frameworks will enable senior public sector and private sectors leaders to create NSPPPs that effectively address national security crises.

An exhaustive literature review highlighted the gap in knowledge regarding key indicators of an effective NSPPP. To address this knowledge gap, this study used a modified Delphi process. The Delphi method provided the researcher with the capability to leverage unique insight from experts, which provided understanding to complex problems and issues (Skulmoski et al., 2007).

This study had a duration of three rounds. A pilot test panel ensured that the survey questions were appropriate for the Delphi panel members and effective toward answering the research question. Current and former NSPPP leaders comprised the Delphi panel. The researcher did not link Delphi survey answers to specific participants, which mitigated the risk of over-bearing leaders biasing the consensus process (Hsu & Sandford, 2007). Consensus among the panel members identified and prioritized the key indicators of an effective NSPPP (Clibbens, Walters, & Baird, 2012). Statistical methods, the expertise of the panel members, and triangulation ensured validity, reliability, and generalization of the study.

Research Questions

The stated purpose of this study was the development of a framework that characterizes an effective NSPPP by identifying and prioritizing NSPPP key result and performance indicators. A key result indicator shows how well an organization meets stated goals and objectives. Key performance indicators are internal qualities that enable an organization to

accomplish stated goals and objectives. The resultant framework comprised of both indicator types will allow senior leaders to measure and determine if a NSPPP is effective (Shabaninejad et al., 2014). One research question guided this study. The sub-questions guided the creation of Delphi questions designed to build consensus among panel members, answer the research question, and accomplish the purpose of the research study.

RQ1: What key indicator framework best characterizes an effective NSPPP?

SQ1: What are the key result indicators that characterize an effective NSPPP?

SQ2: What is the priority order for the key result indicators characterizing an effective NSPPP?

SQ3: What are the key performance indicators that make a NSPPP effective?

SQ4: What is the priority order for the key performance indicators that make a NSPPP effective?

Conceptual Framework

Literature regarding NSPPPs highlights the importance of leadership (Fry-Pierce & Lenze Jr., 2011) and organizational structure (Busch & Givens, 2012). Although there are numerous leadership and organizational theories, the servant leadership theory and institutional organization theory were most relevant to this research study. Both theories better answered the research question and addressed the purpose of this study.

Leadership theory. Although leadership theory is one of the most researched topics in the field of behavior science, there presently is no universal definition or theory of a leader (Parris & Peachey, 2013). When combining research in both the 20th and 21st centuries, there are over 200 definitions of leadership (Beyer, 2012). The overarching definition of leadership is

inherently linked to an individual accomplishing the leading, critically analyzed by followers in a dynamic environment (Latham, 2014). There is also consensus that an effective leader has the skill to influence followers to a common goal (Parris & Peachey, 2013). Chapter 2 will further explore most major, leadership theories; however, the servant leadership theory had the most relevance on this research study.

In 2013-2014, Latham (2013) published a series of four articles that explored behaviors and characteristics of senior leaders and provided context to servant leadership. Latham (2013) identified nine behaviors and five characteristics of successful strategic-level leaders, leaders that comprise the population of this research study. Eight of these behaviors (role model, respect, collaborative, communication, accountable, systems thinking, personal involvement, and personal learning) and four of these characteristics (purpose and meaning, humble and confident, integrity, and systems perspective) are tenants of the servant leadership theory. Servant leaders are those who are primarily motivated to serve others, ensuring that they are accountable to the members of the organization, create strong organizations that are capable of solving very difficult challenges plaguing this world, and ground the organizational relationships in integrity and trust (Parris & Peachey, 2013).

Organizational theory. An organization is a mechanism used by people to coordinate actions and activities to accomplish something of value or of the common vision (Mahalinga Shiva & Suar, 2012). By definition, a NSPPP encompasses three general organizations: public sector organization, private sector organization, and the national security partnership organization. Although there are three organization types, each type operates both singularly and as an aggregate under constraints and barriers imposed by larger global, national, and corporate

environments (Walls & Hoffman, 2013). There are many organizational theories in literature; however, because of the larger environmental constraints and barriers imposed on the NSPPP, the institutional theory best applied to this research study (Greenwood & Miller, 2010).

The institutional theory best mitigates these conflicting factors via the partnership organizational construct (Greenwood & Miller, 2010). In the NSPPP structure, the risks and leadership responsibilities are shared across all partners. However, as the partnership grows, there is a potential for it to transform into a harmful managed professional bureaucracy (Greenwood & Miller, 2010). It is incumbent on the NSPPP leader to ensure that this evolution does not occur, while at the same time addressing the organizational reactions identified by Iarossi, Miller, O'Connor, and Keil (2013). The institution theory is best applicable in mitigating this harmful evolution, evaluating trust-building behaviors, and fostering an environment of information sharing (Wang, Tseng, & Yen, 2014).

With the institutional theory, the security of an organization and authority of its leaders is directly tied to a larger environment existing outside of the organization (Greenwood & Miller, 2010). For example, there may be regulations, certifications, budgetary issues that compel an organization to act in a certain way in the marketplace. A national security organization will not only be compelled to act in a way that United States Government entities and environment direct, but also in a way to counter an adversary's expected action or stated intent. In other words, in a national security apparatus, an outside environmental catalyst is not only friendly based but also competition/adversarial based.

Definition of Terms

National security. For the purposes of this research study, *national security* relates to protecting and preserving what makes the United States unique (Caudle, 2009). Uniqueness not only includes physical structures, critical infrastructures, and the economy, but also intangibles to include culture, values, and liberty (Kim, 2012).

Public sector. Public sector includes the United States Government, state and local governments, and non-profit organizations (Zhe & Ming, 2009).

Private sector. The private sector encompasses for-profit organizations (Zhe & Ming, 2009).

Senior leaders. For the purpose of this study, *senior leaders* are defined as executive directors of NSPPPs, executive level leaders of NSPPP member organizations, and senior members of the United States Government.

Assumptions

This research study had three assumptions. First, this research study assumed that all individuals in the sample will participate. Each individual received details and time requirements of the Delphi study. No individual was forced to take part in the study. If the individual accepted the offer to participate, then the researcher assumed that the individual was an active participant.

Second, this research study assumed that consensus among the senior leaders was attainable. Most, if not all, of the participants are strong, decisive leaders. There was a potential of the strong leaders overpowering the more reserved leaders, causing any consensus to include a dominance biased (Hallowell & Gambatese, 2010). A characteristic of the Delphi method is

anonymity of the participants (Fletcher & Marchildon, 2014). The anonymity will empower and encourage all individuals to participate; thereby, mitigating dominance bias and providing a consensus that represents the experiences of all leaders (Hallowell & Gambatese, 2010).

Third, this research study assumed that both the researcher and the participants entered the study with biases. Because the Delphi study relies on the judgment of experts, the reliability of these judgments needs to be assessed (Drost, 2011). The best way of identifying this bias is via triangulation, which is the use of multiple methodologies or data sources to study the same event (Homburg, Klarmann, Reimann, & Schilke, 2012). In addition, beginning in Round 2, the panelists rated the results of the previous round narrative answers. The intraclass correlation coefficient between the panelists' ratings identifies the reliability of a specific panelist for any given round and mitigates this bias.

However, a researcher also brings bias into a Delphi study (Chenail, 2011). In this study, the researcher has more than ten years' experience forming and leading NSPPPs. Applying personal bias to qualitatively obtained data was a real possibility. To negate this bias, the researcher used NVivo analytic software to analyze all survey answers and narratives in each round of questions. In addition, the pilot test panel was an effective means for identifying research bias that could have potentially entered into the Round 1 Delphi questions (Chenail, 2011).

Scope

Scope of this research study was limited to senior leaders, from both the public sector and private sector, which were currently or have in the past been members of NSPPPs. Although this resulted in a small sample size, there is no correlation between the effectiveness of the study and

the number of Delphi panelists (Hallowell & Gambatese, 2010). As part of their research, Hallowell and Gambatese (2010) noted that most Delphi studies averaged between 8 and 16 panelists. The most important variable in a Delphi study is the expertise of the panel member (Hallowell & Gambatese, 2010). Even though organizations comprise NSPPPs, the establishment, mission, unity, and motivation of the NSPPP is the responsibility of the leaders of the organizations (Fry-Pierce & Lenze Jr., 2011). For this study, public sector senior leaders referred to the executive directors of the NSPPP, leaders or deputy leaders of government agencies in a NSPPP, and leaders or deputy leaders of government organizations exercising an oversight function of a NSPPP. Private sector senior leaders referred to the CEO, chairman of the board, or vice president of a corporation that exercises considerable clout or influence in the NSPPP.

Limitations

There were two limitations that threaten the validity of this research study. Limitations refer to threats against the validity of this research study that fall beyond the control of the researcher. The first limitation is the inability of the researcher to guarantee that all of the panel members participate in each round. The researcher expected that a panel member will accomplish all rounds of the Delphi study. Each panel member was also a senior leader in industry or the public sector. With this leadership responsibility, there was an expectation that a few of the participants will not take part in each round. Prior research identified an average attrition rate of approximately 25-30% (Donohoe & Needham, 2009). The researcher expected to have a sample size of 20 experts to account for this attrition and maintain a sample size no

smaller than 14, with the understanding that study validity required a sample size of at least 8 (Hallowell & Gambatese, 2010).

Second, the researcher had no control over the honesty of the panel members. The researcher expected that each panel member was an individual of integrity. However, there are mechanisms built into the Delphi process that can ensure an expert does not intentionally or unintentionally bias the findings. For example, the anonymity of the Delphi study mitigates any one panel member influencing other members' answers and inserting dominance bias (Hallowell & Gambatese, 2010).

Delimitations

This research study was limited to NSPPPs that are United States centric. Senior leaders in both the public and private sectors must have his or her experience in United States based NSPPPs. It was possible that a participant had experience in both United States and global (e.g., United Nations, NATO, INTERPOL, etc.) NSPPPs. In these cases, the participant was directed to focus his or her questionnaire answers to account for the United States activity only.

In addition, the researcher expected the findings of this study to transfer to PPPs at the local level. However, many of the issues plaguing a national or regional PPP, like information sharing and a large geographical area of interest, do not apply to a local PPP. This research study limited its focus at the national level, and on a case-by-case basis, the regional level.

Summary

Studies consistently state that the United States must prepare for another September 11-type terrorist attack on a strategic scale (Fry-Pierce & Lenze Jr., 2011). Hurricane Sandy demonstrated that widespread natural disasters continue to impact the United States. In each

case, an effective NSPPP is the only means for the United States to rapidly and effectively respond (Kapucu, 2006). Unfortunately, NSPPPs designed to respond to these types of events are ineffective (Flynn, 2007). The purpose of this study was to leverage unique insight and experience of senior national leaders via a modified Delphi method to identify and prioritize key indicators of a NSPPP and develop a framework that accurately characterizes an effective NSPPP. Chapter two includes a review of existing literature on NSPPPs, components of an effective relationship, and leadership. In keeping with the modified Delphi method, the literature review will enable the formation of effective Round 1 questions.

Chapter 2

Review of the Literature

One of the purposes of a literature review is identifying research gaps in the topic covered by a study (Arksey & O'Malley, 2005). The purpose of this qualitative study using a modified Delphi method was the development of a framework that characterizes an effective NSPPP. Foundational to the framework's development was the identification and prioritization of a NSPPP's key indicators. Although there is little scholarly literature regarding partnerships at the national security level (Busch & Givens, 2012), there is no scholarly literature that identified the key indicators of a NSPPP.

A lack of scholarly research highlights a possible gap in knowledge that this study could fill. However, a lack of research could also indicate that the ignored topic may not be critical in the larger scholarly discussion regarding NSPPPs. The literature review enables the researcher to deductively ascertain the importance of the research topic.

A literature review is valuable in identifying pertinent questions for the first round of the Delphi study. Application of literature review findings in this manner defines the difference between an original Delphi study and a modified Delphi study (Wood et al., 2013). Without the benefit of the literature review, the first round of the Delphi study would be used to determine knowledge that is already known (Fletcher & Marchildon, 2014). The caliber of the individuals participating in this Delphi study instills a rigid availability limitation. Using one round of the Delphi study to identify relevant topics, question direction, or already known information is a waste of the critical resource of time. The literature review enabled the researcher to use Round

1 to immediately address the research question and better accomplish the purpose of the study (Custer, Scarcella, & Stewart, 1999).

Chapter 2 contains the findings of a literature review focused on confirming the original research of this study, determining the overarching importance and relevance of the study, identifying leadership and organizational qualities associated with an effective NSPPP, and infer components or requirements to make a public sector-private sector partnership successful. This study's literature review consists of seven sections. Section one summarizes keywords and relevant literature types and titles used for the research study. Section two is a historical overview of public sector-private sector partnerships created to address national security issues. Section three focuses on trust as a possible key performance indicator of an effective NSPPP. Sections four and five focuses on leadership types and organizational structures of public-private partnerships. Section six focuses on policy and cultural issues relevant to NSPPPs. Section seven provides an overarching literature review findings applicable to this research study.

Title Searches, Articles, Research Documents, and Journals

Sources for the literature review included peer-reviewed journal articles, reports from both the public sector and private sector, presentations to academic audiences, and books on the topic of public-private partnerships. Several databases were used to locate applicable literature for consideration in furthering the purpose of this research study. General databases (EBSCOhost, ProQuest, and Emerald) and disaster response-specific databases (Economist.com, Global Issues in Context, Journal of Leadership Studies, and World News Digest) were used. Key search terms included *partnerships*, *effective partnerships*, *information sharing*, *private*

sector concerns, public sector concerns, trust, emergency preparedness, emergency response, emergency resiliency, and modified Delphi.

The overview and literature review incorporates one hundred and thirty-two sources. Of that number, 39 (29%) were sources earlier than 2010. Although the literature is dated, the information contained was germinal consistent with present day findings. In many cases, older sources were the last scholarly articles pertaining to a specific topic or keyword. Eighteen of the older sources pertained to leadership, the Delphi method, and foundational research regarding partnerships and trust. The majority of scholarly literature related to public-private partnership occurred from 2003-2007. This paralleled the increased emphasis on partnerships to combat terrorism and solve systemic critical infrastructure vulnerabilities in the aftermath of the September 11, 2001 attacks.

Historical Overview of National Security Public Sector-Private Sector Partnerships

NSPPPs are critical to react, respond, and prepare for strategic-level, natural and man-made disasters and crises. Over the past 15 years, the United States has suffered loss of life and staggering economic impacts from strategic-level disasters. The September 11, 2001 terrorist attack resulted in 3000 deaths and an economic impact as high as \$77.0 billion (Werling & Horst, 2009). Hurricanes Katrina, Rita, and Wilma totaled \$103 billion (Financial Management, 2013). Hurricane Sandy created an economic toll of \$50 billion (Newman, 2012). Future strategic-level disasters have dire predicted impacts. For example, a pandemic influenza outbreak could kill more than 1.9 million people and have an economic impact from \$200 billion to \$800 billion (Garrett, 2008). The consequences of a strategic cyber-attack against a critical United States infrastructure could result in complete paralysis of the nation (Panetta, 2012).

For each of the previously mentioned disasters, and in anticipation of future strategic-level disasters and crises, NSPPPs were and are created. For example, immediately after the September 11 attacks on Wall Street, a partnership with Verizon ensured that the New York Stock Exchange communications infrastructure remained operational (Busch & Givens, 2012). Regarding Hurricane Katrina, a partnership with Wal-Mart ensured that relief supplies rapidly arrived to the locations most needy (Busch & Givens, 2012). Regarding future strategic-level disasters and crises, NSPPPs are critical to the United States' national security preparedness and resiliency (Obama, 2010b).

NSPPPs are not a new concept. In 1887, Woodrow Wilson touted the importance of NSPPPs (Carter, 2008). NSPPPs were used in the aftermath of the 1871 Chicago Fire, 1906 San Francisco Earthquake, and 1927 Mississippi Flood (Busch & Givens, 2012). However, NSPPPs did not emerge into the mainstream national discussion until the Carter Administration (Kingsley & Fortuny, 2010). President Carter called on private and public sector partnerships to aid in the United States housing sector.

However, until the September 11, 2001 terrorist attacks, there was not a Cabinet-level organization with the responsibility of creating effective NSPPPs. In 2002, the Department of Homeland Security (DHS) was formed to facilitate the creation and oversight of NSPPPs (Busch & Givens, 2012). Examples of NSPPPs that DHS oversee include the Critical Infrastructure Partnership Advisory Council (CIPAC), National Cyber Security Alliance (NCSA), Customs Trade Partnership Against Terrorism (C-TPAT), and Screening Partnership Program (SPP) (Busch & Givens, 2012).

According to research conducted by Carter (2008), NSPPPs have two primary purposes: information sharing and disaster preparedness and response. Regarding information sharing, in his *National Strategy for Information Sharing and Safeguarding*, President Barack Obama (2012) linked the importance of information sharing not only to create an effective NSPPP, but also bolster the security of the United States. He stated that the safety and security of the nation is directly linked to the degree of cooperation among the public and private sectors. One area of critical cooperation is information sharing. National security demands the rapid sharing of threat and intelligence information from the highest levels of government to the local police officer on patrol (Obama, 2012).

Efficient and transparent information in a NSPPP increases the effectiveness of the partnership (Obama, 2012). The benefit to the United States Government is the ability to rapidly discover actionable intelligence that enhances and defends national security. The benefit to the private sector is rapid identification of threats. In the case of cyber security, a NSPPP with effective information sharing allows the private sector partners to not only have rapid notification of a threat but also have the same threat solution fielded to protect the United States Government (USG) networks (Bipartisan Policy Center, 2012). In addition, a NSPPP allows collaborated and coordinated decision-making, resulting in a more effective decision in a shorter time span (p. 7). Bottom line, an effective NSPPP better protects the United States' infrastructure and provides the private sector with information related to threats and vulnerabilities (Carter, 2008).

Unfortunately, there is a lack of trust between the private sector and public sector, which limits the effectiveness of information sharing in a NSPPP (Givens & Busch, 2013). In addition,

the mosaic theory defines a cultural issue that affects effective information sharing in a NSPPP. The mosaic theory states that information released by the United States Government can be joined with information in the public domain to uncover classified information or operations (Jaffer, 2010). The mosaic theory is justification for the public sector to withhold information. However, the mosaic theory also empowers the private sector to withhold information that can be joined with information in the public domain to uncover proprietary data. An effective NSPPP must account for the possible effects of the mosaic theory fear.

Disaster preparedness and response is the second primary purpose of a NSPPP. In his *National Security Strategy*, President Barack Obama (2010b) linked the importance of NSPPPs to America's disaster preparedness, response, and resilience. He stated that United States citizens are the source of the nation's resiliency and creativity. These citizens are a part of both public and private sector organizations. When partnerships are formed among these organizations and effective information sharing and coordination occurs, the result is ingenuity that can be used to better safeguard the nation (p. 16).

With more than 85% of the United States' critical infrastructure owned by the private sector (United States Government Accountability Office, 2007), any response to an event of the magnitude of Hurricane Katrina, Hurricane Sandy, and the attacks on September 11, 2001 requires effective NSPPPs (Fry-Pierce & Lenze Jr., 2011). The government agency responsible for coordinating and consolidating national emergency response is the Federal Emergency Management Agency (FEMA) (Busch & Givens, 2012). As a result of Hurricane Katrina, FEMA has embraced the value and ingenuity that is resident in NSPPPs. In his address to a

group of business leaders, FEMA Administrator Craig Fugate attested to the importance of NSPPPs to United States emergency preparedness, response and resiliency (Fugate, 2011).

Literature has consensus regarding benefits of effective NSPPPs. Some of these benefits, to include benchmarked business practices and enhancement of reputations (Congressional Research Service, 2011) do not have critical relevance when considering national security. However, the benefits from sharing resources and sharing risk are not only relevant to national security, but also are also corroborated via numerous literature sources.

Regarding sharing resources, the act of addressing national security issues is expensive. For example, the cost to increase the capacity of the shipping infrastructure in California is more than \$23.7 billion (Mongelluzzo, 2003). The cost to place radiological scanners in every United States port is \$16 billion (Napolitano, 2012). These costs are too large for the government to pay on its own (Mongelluzzo, 2003). Because a primary purpose of a NSPPP is enhancing the resiliency of the United States, both the private sector and public sector should share the cost of the enhanced resilience (Congressional Research Service, 2011). In the previous example, if the public sector formed a NSPPP to address port security, and the private sector was properly incentivized, these large capital expenditures can be shared across many organizations and entities.

Addressing risk is the best incentive to a private sector organization to share in the cost of a national security solution (Bloomfield, 2006). The cost to the United States Government to safeguard its ports is a minimum of \$16 billion (Napolitano, 2012); however, the private sector can be incentivized to address the portion of the overall cost that is applicable to their specific corporation or business concern. For example, the Customs-Trade Partnership Against

Terrorism (C-TPAT) Green Lane program is a good example of a unique private sector incentive to expend capital. In the aftermath of a terrorist attack, a shipper given green lane privileges will have an uninterrupted movement of commerce through ports (Eyerdam, 2005). Getting green lane certification will require shippers to expend capital to have an accurate supply chain security plan and outfitting all their containers with smart technology. Granted, this requires the shippers to expend large amounts of capital and retained earnings; however, the insurance of free-flow commerce makes the expenditures worthwhile (Eyerdam, 2005).

Key Indicators of an Effective NSPPP

Although important to national security, the topic of key indicators of effective NSPPPs has little coverage in scholarly literature (Busch & Givens, 2012). This is not just a United States-centric problem, nor is the lack of research confined to United States scholarly literature. According to Zhe and Ming (2009), NSPPPs are critical to create and protect China's growing infrastructure. However, there is a lack of exhaustive research related to Chinese NSPPPs (Zhe & Ming, 2009).

Of the scholarly literature that does exist regarding indicators of effective NSPPPs, trust and leadership were most often highlighted as possible key performance indicators. However, even as the scholarly literature made definitive statements regarding key indicators, they later caveat the statements to account for less than scholarly sources. For example, Getha-Taylor (2012) definitively states that trust is critical to effective public-private partnering. However, her cited sources focus on components of effective collaboration versus true public-private partnering. In the end, Getha-Taylor backs off of the definitive and correctly states that it is

expected (versus proven) that trust is critical but more scholarly research must be accomplished to corroborate the linkage (p. 217).

In research by Van Gestel, Voets, and Verhoest (2012), trust was identified as one of the key indicators of an effective PPP. A survey conducted by Edelenbos and Klijn (2007) was cited as the source for the definitive statement. However, upon review of the source, the survey was described by Edelenbos and Klijn as ad hoc. In addition, the stated purpose of the survey was not to identify key indicators of a NSPPP. The survey was conducted to show relevance for conducting further research in organizational partnerships. In their survey of 207 PPP members and participants attending a PPP conference in the Netherlands, 87% identified trust as the most important component for a PPP's success (Edelenbos & Klijn, 2007). However, the same researchers recognized the ad hoc nature of the survey and acknowledged the gap in research and scholarly literature regarding the same topic.

Zhe and Ming (2009) voiced the consensus in scholarly research regarding the importance of trust in a PPP; however, they state that there is a lack of understanding on the sources of trust and how much trust affects the success of the PPP. Poppo and Schepker (2010) identified that few scholarly works focus on how trust develops among organizations. Krot and Lewicka (2012) stated that the gap in knowledge not only focuses on dimensions and types of trust, but also expectations of the partnership entities. This qualitative, modified Delphi study addressed this research gap and expectations.

Without proper and competent leadership, the NSPPP is ineffective (Fry-Pierce & Lenze Jr., 2011). Presently, FEMA provides NSPPP management at the time of a crisis. However, according to a report from the Business Executives for National Security, the government cannot

manage a strategic level disaster without the private sector (Carter, 2008). The response to Hurricane Katrina is a good example of the need for the private sector. In some of the hardest hit areas of New Orleans and other Louisiana parishes, Wal-Mart arrived with food and water at least three days before the United States Government (Horwitz, 2009). In the three weeks from the landfall of the hurricane, Wal-Mart shipped approximately 2500 truckloads of emergency supplies and merchandise into the disaster area. While Wal-Mart provided the largest response, others also demonstrated rapid logistics in the time of crisis. Home Depot shipped over 800 truckloads of supplies into the area (Horwitz, 2009). These private sector organizations were able to respond rapidly because they had already activated war rooms and negotiated with vendors for increased supplies (Horwitz, 2009). Overall leadership of the disaster response needs to reside with FEMA; however, not leveraging the leadership and expertise in the private sector would be a mistake.

However, even with the criticality of leadership to a NSPPP, there is little scholarly research on the topic. Busch and Givens (2012) cite an investigative journalism work by Priest and Arkin (2011) as being one of the most comprehensive in the area of partnerships for national security purposes. Priest and Arkin (2011) conclude that ineffective leadership of a NSPPP is a threat to national security. However, Busch and Givens (2012) call into question the generalization of Priest and Arkin's conclusions to all NSPPPs (p. 12).

As previously stated, the literature review enables the researcher to deductively ascertain the importance of the research topic and any gaps in knowledge. In addition, the literature review gives the researcher valuable substance from which to craft discussion questions for the

first round of the Delphi study (Wood et al., 2013). The first round questions of this Delphi study leveraged scholarly literature regarding trust and leadership to address identified gaps.

Leadership Criteria Related to an Effective NSPPP

There is scholarly literature that deductively identifies leadership as a key performance indicator of a NSPPP. The role of the NSPPP leader is not to generate decision-making consensus, but to facilitate coordination among the membership as they accomplish tasks and services in response to a national security crisis (Ansell & Gash, 2008). If a NSPPP lacks effective and competent leadership that builds strong trust among the membership, the partnership will fail (Fry-Pierce & Lenze Jr., 2011). According to (Steijn, Klijn, & Edelenbos, 2011), leadership is more important than the organizational structure of the partnership.

Although there are many leadership theories, there is a lack of consensus as to what comprises effective leadership (Latham, 2014). The effectiveness of the leader has a direct bearing on the success or failure of the NSPPP. In the process of this study, the researcher expected to encounter numerous leadership theories espoused or demonstrated by members of the Delphi panel. Because these panelists were or are leaders of NSPPPs, it is logical to assume that their individual leadership style was applied to their respective NSPPP. Servant leadership theory attempts to incorporate the best characteristics of many of the most prevalent leadership theories.

Greenleaf first described servant leadership in 1977; however, empirical research did not emerge until the late 1990s-early 2000s (Parris & Peachey, 2013). Servant leaders are those who are primarily motivated to serve others and lead organizations to be better than when he or she acquired the leadership position (Parris & Peachey, 2013). Although there is no servant

leadership theory definition that the research community can embrace, research has identified qualities, characteristics, behaviors, and attributes of a successful servant leader. Parris and Peachey (2013) performed research that synthesized 39 different studies on servant leadership. They found that there were many servant leader attributes and qualities. However, upon review of Parris and Peachey's (2013) research, the majority of the attributes and qualities can be linked to one of three categories: integrity of the leader, benevolence of the leader to followers, and competence demonstrated by the leader. Not only are these attributes of a servant leader, they are also attributes of trust (Krot & Lewicka, 2012). This categorization of servant leader qualities and attributes is in-line with Pekerti and Sendjaya's (2010) finding that a servant leader is a steward that has proven by their actions to be trustworthy. According to research by Whisnant and Khasawneh (2014), leaders who demonstrate strong servant leadership develop a relationship of trust with their subordinates that directly empower the sharing of information. Information sharing and trust among NSPPP members is critical toward making the NSPPP effective. These unique linkages to information sharing, trust, and strong leadership makes servant leadership theory the leadership theoretical framework for this study.

Gaps in leadership as they pertain to a NSPPP. However, in spite of the consensus regarding the criticality of leadership to the effectiveness of the NSPPP, there remains gaps in knowledge and scholarly literature. The following come from research conducted by Getha-Taylor (2012):

- Gap: How does a leader's integrity or competence violations affect public trust in the partnership?
- Gap: Who manages trust in partnerships?

- Gap: Which skills or abilities are most important for building trust?

Each gap is covered in the research question and sub-questions. Over the period of the Delphi study, answers to survey questions enabled the researcher to identify consensus solutions. Solutions, in turn, led to accomplishing the purpose of the research study.

Organizational Structures of an Effective NSPPP

According to Steijn et al. (2011), the organizational structure of a NSPPP has little impact to the success or failure of the partnership. However, there are characteristics of each NSPPP organizational structure that provides the partnership with a better chance of succeeding (Carter, 2008). For example, the size and age of the organization is a good determinate of the potential success of the NSPPP (Zhe & Ming, 2009). Because both public sector and private sector organizations comprise a NSPPP, there is not one specific and applicable organizational theory. However, the institutional theory has the best application to the NSPPP collective and represents the organizational framework for this study. The institution theory states that the behaviors, environment, and norms of an organization are influenced by forces outside of the organization (Jan, Lu, & Chou, 2012). A primary factor is what binds the NSPPP together. A NSPPP is bound together one of two ways: via regulatory/contractual or voluntary mechanisms (Getha-Taylor, 2012).

A regulatory or contractual NSPPP has a legal framework to compel an entity's action to a task. This structure has value when a task needs to get done quickly and the private sector is not willing to expend resources (Steijn et al., 2011). According to Getha-Taylor (2012), the most important trust component in a regulatory partnership is competence.

While the regulatory organizational structure is efficient, the structure is not well received by the private sector (Flynn, 2009). In a voluntary structure, each participant chooses whether he or she will enter, participate, or leave. Carter (2008) states that a voluntary organizational structure provides the best opportunity for the NSPPP to survive. However, one issue with a voluntary organizational structure is keeping the private sector participants engaged. The best means of accomplishing this engagement are via an economic incentive program (Busch & Givens, 2012). A good example of a voluntary NSPPP with built-in incentives is the Department of Defense (DOD) Civil Reserve Air Fleet (CRAF). In CRAF, United States airline carriers volunteer assets that can be used to augment DOD resources (Merritt, 2013). To keep the private sector engaged, the DOD gives CRAF participants the opportunity to bid on DOD peacetime tasks (Grismer Jr., 2011). Since 2001, this incentive totals more than \$30 billion (Merritt, 2013). CRAF is called a successful public-private sector partnership that brings value to both the DOD and the CRAF partners (Grismer Jr., 2011).

Influencing factors pressure organizations to adjust practice and behaviors to be sustainable over the long-term (Iarossi et al., 2013). However, these factors are commonly contradictory (Greenwood & Miller, 2010). For example, commercial factors may be in conflict with professional behaviors. In a NSPPP, public sector factors may be in conflict with private sector factors. Crisis factors may be in conflict with United States regulatory factors. Iarossi et al. identifies five possible organizational reactions to these conflicts: acquiescence, compromise, avoidance, defiance, and manipulation (pp. 78-79).

The institutional theory best mitigates these conflicting factors via the partnership organizational construct (Greenwood & Miller, 2010). In the NSPPP structure, the risks and

leadership responsibilities are shared across all partners. However, as the partnership grows, there is a potential for it to transform into a harmful managed professional bureaucracy (Greenwood & Miller, 2010). It is incumbent on the NSPPP leader to ensure that this evolution does not occur, while at the same time addressing the organizational reactions identified by Iarossi et al. (2013). The institution theory is best applicable in mitigating this harmful evolution, evaluating trust-building behaviors, and fostering an environment of information sharing (Wang et al., 2014).

Policy, Legal, and Cultural Issues Affecting a NSPPP

In addition to leadership and organizational issues, a NSPPP must address policy, legal, and cultural concerns to be effective. The following are issues or impediments to an effective NSPPP that both the private sector and public sector need to address and maintain awareness:

Policy issues affecting a NSPPP. Although an effective NSPPP is best accomplished with increased transparency in information sharing (Busch & Givens, 2012), the private sector continues to rate existing NSPPP information sharing as ineffective (United States General Accounting Office, 2003). One reason for the poor grade given to public sector sharing of information is in the vigilance to protect classified and sensitive information.

The United States Government uses three major classification levels to restrict flows of information in a NSPPP. Information is classified to a level commensurate with the damage to national security if divulged. For all levels, “damage to national security” is defined as harm to the defense of the United States or to critical relationships with foreign nation-states (Bush, 2003).

Top Secret. Unauthorized disclosure of Top Secret information would “cause exceptionally grave damage to the national security” (Obama, 2010a, p. 707).

Secret. Unauthorized disclosure of Secret information would “cause serious damage to the national security” (pp. 707-708).

Confidential. Unauthorized disclosure of Confidential information would “cause damage to the national security” (p. 708).

National security intelligence comes from numerous collection sources and methods. Many of the sources and methods are tenuous and fragile. If the source or method is inadvertently disclosed, the adversary could change operating practices to negate collection, or in the case of a human source, incarcerate or kill the source (Gioe, 2014). There is also an economic cost if sources or methods are inadvertently disclosed. Snowden’s revelations jeopardize billions of dollars of profit for Google, especially as they broaden their Internet cloud services (Byron & Jon, 2013). Amazon and Microsoft could also lose \$135 billion per year from European cloud customers (Warnica, 2013). Many sources of intelligence, both individual and nation-state, contribute information to the United States under the expectation—either directly assured or implied—that their identity would be held in confidence (Gioe, 2014). In order to protect these sources and methods, the public sector not only classifies information, but also requires two criteria before dissemination.

First, the individual or entity requesting the information must have the proper security clearances (Obama, 2010a). Not only must the recipient have the correct classification level, but in some cases, must have the correct caveats. For example, intelligence received via human intelligence sources (HUMINT), communication intelligence sources (COMINT), and some

signals intelligence (SIGINT) sources have caveats in addition to the overall classification level (United States General Accounting Office, 2003).

Second, the individual or entity requesting the information must have a need to know (Obama, 2010a). Need to know is defined as access to classified information that is necessary to the performance of an assigned duty or function (Bush, 2003). If the individual or the entity does not meet either of the two criteria, the classified data is not shared.

Legal issues affecting a NSPPP. There are two overarching legal issues relevant to a NSPPP: the Freedom of Information Act and the Federal Advisory Committee Act. The Freedom of Information Act (FOIA) gives an individual or entity the right to access government records; thereby, providing a level of transparency and accountability in the government (United States Government Accountability Office, 2008). Whereas, the government uses the criteria of need to know to determine a valid request for information sharing, FOIA gives a requestor of government information the right to know (p. 7). However, FOIA provides the government with exemptions, allowing the government to deny a FOIA request. For example, Exemption 1 allows the government to deny a FOIA request in the interest of national security (p. 66).

The United States Government crafted the Federal Advisory Committee Act (FACA) to ensure openness, transparency, and accountability of advisory committees created to advise the government (Spielman, 2003). By definition, a national security public-private partnership assumes and infers a relationship between the two parties. The purpose of a NSPPP is to prepare and respond to national security crises like strategic-level terrorist attacks, widespread natural disasters, or any event that puts in jeopardy a United States' national interest. When an effective partnership prepares or responds to an event, it is assumed that the members of the partnership

conduct discussions, research, and ultimately come to a consensus of strategy. When an advisory committee, comprised of private sector individuals, provides consensus-derived advice or counsel to the United States Government, the government needs to determine if the committee falls under FACA regulations. Membership meetings are pre-announced, open for public attendance, and committee funding records available for examination (Carlson, 2005).

According to Ginsberg (2011), there are three criteria for an organization to be governed by FACA regulations. First, a statute creates the organization. Most prior and existing NSPPPs are not created by statute. Second, the organization provides advice to either the President of the United States or a government agency. A NSPPP could provide advice to one or more government agencies. Third, the sole purpose of an advisory committee is to provide advice. However, the purpose of a NSPPP is not only to advise, but also prepare and rapidly respond.

The transparency directed by FACA is a barrier to the private sector sharing their vulnerabilities, proprietary information, and strategic plans to the government (Carlson, 2005). Although there are exemptions to FACA, there are risks that sensitive private sector information could be exposed in the public square. However, if the NSPPP charter is clearly written, with FACA criteria taken into account, the private sector is ensured that sensitive data is safe from public scrutiny.

Cultural issues affecting a NSPPP. For a partnership to succeed, the relationship has to be built over a period of time (Givens & Busch, 2013). As a rule, the longer two entities successfully collaborate, the more trust grows (Raza, Hussain, Hussain, & Chang, 2011). Trust is not transferable. However, as long as it takes to grow and cultivate trust, it can be damaged or

destroyed in a very short time (Maguire & Phillips, 2008). One untrustworthy action can damage a relationship cultivated over a long period of time (Poppo & Schepker, 2010).

In a relationship, trust resides in the individual (Getha-Taylor, 2012). According to research from Raza et al. (2011), the trustworthiness that an individual brings to a relationship or partnership is tied to an individual's length of time in a trusted relationship and integrity over a long period of time. This research leads to the conclusion that an effective NSPPP must have trusted leadership over the long-term. Longevity of leadership is counter-culture to both the United States Government manning practices and average CEO tenures in Fortune 500 companies. It is expected that the executive director of the NSPPP will be either a political appointee, government civilian, business leader, or military officer. The tenure of the current administration usually defines the length of time for the political appointee. Average CEO tenure length is approximately six years (Kaplan & Minton, 2012). Military officer tour lengths are between 18-36 months (United States Army, 2012). Research indicates that time of NSPPP leadership may play a critical part in the effectiveness of the partnership Raza et al. (2011). The Delphi questions pursued this cultural nuance to determine validity.

Literature Review Findings

Overview findings. The initial finding is in regards to scholarly literature on the research topic. Although present day senior United States Government leaders voice the need for NSPPPs to address natural disasters and man-made crises, there is very little research on how to form an effective NSPPP. The majority of the scholarly literature is in the form of United States national strategies and GAO reports from a time period of 2002-2007.

Components of an effective NSPPP finding. Research identified two overarching goals of a NSPPP: enhance and empower effective information sharing to identify, address, mitigate, and ultimately negate threats to the United States and its allies and interests; and enhance and empower disaster and emergency preparations, responses, and resiliency efforts that address man-made threats and natural disasters (Carter, 2008). For both of these goals, informal scholarly research demonstrated a consensus regarding the criticality of trust as a component of an effective NSPPP.

The first round of the Delphi study incorporated the literature review identified knowledge gaps. Gaps include a lack of understanding on the sources of trust and how much trust affects the success of the PPP (Zhe & Ming, 2009), a lack of understanding on how trust is built among organizations (Poppo & Schepker, 2010), and a lack of understanding regarding expectations of the partnership entities (Krot & Lewicka, 2012).

Leadership findings. As important as trust is to an effective NSPPP, the leader is to evolving and nurturing the trust (Getha-Taylor, 2012). Ultimately, if a NSPPP lacks effective and competent leadership, the partnership will fail (Busch & Givens, 2012). However, in spite of the consensus regarding the criticality of leadership to the effectiveness of the NSPPP, there remains gaps in knowledge and scholarly literature. For the purpose of this study, the servant leadership theory is most appropriate and was the theoretical framework of the study.

Organizational findings. A NSPPP organizational structure falls under one of two categories: regulatory/contractual or voluntary (Tishuk, 2012). However, literature review found that the organizational structure of a NSPPP has little impact to the success or failure of the

NSPPP (Steijn et al., 2011). However, of the organizational frameworks researched, the institutional theory was the framework appropriate for this study.

Policy, legal, and cultural findings. A NSPPP has both real and perceived policy, legal, and cultural issues. Literature on these issues is minimal; however, there is saturation regarding four subtopics: security classification, Freedom of Information Act, proprietary information, and non-transferability of trust in NSPPP leadership. First, the public sector has a legal duty to enforce security classifications of data and protect intelligence sources and methods. Many of the intelligence sources and methods are in a continued state of jeopardy. If the source or method is inadvertently disclosed, the adversary could change operating practices to negate collection, or in the case of a human source, incarcerate or kill the source (Gioe, 2014). There is an existing policy that allows declassification and release of classified information. However, it must be assumed that this declassification process is done rarely, and only in a case of national security. Delphi questions validated this issue.

Second, the Freedom of Information Act (FOIA) gives an individual or entity the right to access government records; thereby, providing a level of transparency and accountability in the government (United States Government Accountability Office, 2008). However, FOIA provides the government with exemptions, allowing the government to deny a FOIA request. Delphi questions also determined the level of concern regarding FOIA and NSPPP effectiveness.

Third, protection of proprietary information is critical to the long-term success of a corporation. However, when private sector entities create consensus and advise the government, their proceedings fall under the Federal Advisory Committee Act (FACA). FACA was created to ensure openness, transparency, and accountability of advisory committees created to advise

the government (Spielman, 2003). The transparency directed by FACA is a barrier to the private sector sharing their vulnerabilities, proprietary information, and strategic plans to the government (Carlson, 2005). Although there are exemptions to FACA, there are risks that sensitive private sector information could be exposed in the public square. Delphi questions determined the level of concern regarding inadvertent disclosure of proprietary information and what safeguards are required by the private sector to safeguard their sensitive information.

Fourth, an effective NSPPP requires trust and that trust is non-transferrable when one of the leaders leaves the partnership. Unfortunately, the culture of the government and private sector leaders is short tenures in leadership positions. Delphi questions validated this cultural nuance.

Summary

The literature review has two purposes. First, it enables the researcher to identify research gaps in the topic covered by a study (Arksey & O'Malley, 2005). The majority of the scholarly literature focuses more on identifying a problem in a NSPPP than proposing a policy or process solution. A lack of research highlights a possible gap in knowledge that this study could fill. However, a lack of research could also indicate that the ignored topic may not be critical in the larger scholarly discussion regarding NSPPPs. This study's literature review accomplished the first purpose and validated the need for the study.

The second purpose of the literature review is to aid the researcher in crafting pertinent questions for the first round of the Delphi study. Application of literature review findings in this manner defines the difference between an original Delphi study and a modified Delphi study (Fletcher & Marchildon, 2014). Without the benefit of the literature review, the first round of

the Delphi study would be used to determine knowledge that is already known. This literature review accomplished the second purpose.

Chapter 3 contains a detailed description of the Delphi methodology to include its history, differentiation of a modified Delphi, and why the methodology was applicable to this study. In addition, details of the population, mechanisms of using Delphi for this study, and validation are also included. Lastly, Chapter 3 details the study's qualitative data collection, analysis, and validation processes.

Chapter 3

Method

The purpose of this qualitative study using a modified Delphi design was the development of an effective NSPPP framework by identifying and prioritizing the key indicators that make a NSPPP effective. Because there is little scholarly literature regarding partnerships at the national security level (Busch & Givens, 2012), this research required a modified Delphi design. The Delphi design leverages unique expertise, in an iterative process, to discover knowledge that has not been previously discovered (Skulmoski et al., 2007).

The study surveyed prior and current senior leaders of NSPPPs. The senior leaders took part in three rounds of questions designed to identify key indicators of an effective partnership (Fletcher & Marchildon, 2014). As a result of the Delphi process, the senior leaders not only identified the key indicators, but also prioritized the indicators.

Chapter 3 includes in-depth narrative regarding the research design and method. Discussions include descriptions and value of the Delphi design, and why the modified Delphi is more appropriate than other methods or designs. Chapter 3 also discusses the appropriateness of these processes, research questions, and discussion items. Chapter 3 also includes narrative on the population, sampling, data collection and analysis processes. Last, this chapter discusses the validity and reliability of the study.

Research Method and Appropriateness

This study used a qualitative approach to identify and prioritize the key indicators of an effective NSPPP. The qualitative method is appropriate when a study requires human insight,

unique experience, and non-numeric data to answer the research questions (Slife & Melling, 2012). The purpose of this study was the identification of key indicators of an effective NSPPP. The Delphi process leveraged senior leaders in an iterative way accomplish this purpose. A qualitative method is appropriate in linking steps to discover and better understand the *why* and *how* of a difficult problem (Soteri-Proctor, 2010). This study used open-ended questionnaires as the primary initial data gathering tool. The open-ended questions provided an iterative means to create consensus on the key indicators that make a NSPPP effective (Chenail, 2011). Ultimately, the identification of key indicators was via judgments (e.g., what makes a NSPPP successful) of the Delphi panel members. The qualitative method was appropriate in capturing these judgments and perspectives of the panel members (Soteri-Proctor, 2010).

One of the advantages of a Delphi study is the capability to collect and analyze both qualitative and quantitative data (Fletcher & Marchildon, 2014). In Rounds 2 and 3, statistical analysis tools were used to prioritize the key indicators of an effective NSPPP. The use of statistical analysis tools is inherently a quantitative function. Quantitative functions enabled the researcher to measure causal relationships in data (Russo, 2011). The topic of this research study infers a causal relationship between the key indicators and a NSPPP's effectiveness.

Research Design and Appropriateness

Previous research regarding NSPPPs utilized the case study research design extensively. According to Yin (1994), there are three major categories of case study research design: descriptive, explorative, and explanatory. Descriptive and exploratory case study designs have more historical precedent in research; however, they lack the academic rigor necessary for research reliability and validity (Fisher & Ziviani, 2004). An explanatory case study design is

optimized to create a theoretical framework from which a researcher can anticipate specific outcomes from organizational conditions (Simons, Ziviani, & Copley, 2011). The explanatory case study design uses the multiple variables identified in the literature review to identify theoretical causal relationships (Fisher & Ziviani, 2004). Unfortunately, as discovered in this study's literature review, there are no scholarly-identified variables from which an explanatory case study could provide value toward accomplishing the purpose of this study.

The phenomenological research design is not appropriate for this study. The phenomenological design focuses on the life experiences of an individual (Gee, Loewenthal, & Cayne, 2013). Although each current or prior NSPPP leader has valuable life experiences related to the effectiveness or ineffectiveness of their specific NSPPP, this study is not concerned with the experience of leading a NSPPP. To sufficiently answer the research questions, the lessons learned from the individual's experience has to be combined with other leaders' experiences to come to a consensus of what indicators are critical for an effective NSPPP and the prioritization of the indicators. Although consensus may occur when individual life experiences are synthesized with other life experiences, consensus is not a primary attribute of a phenomenological design (Gee et al., 2013).

The Delphi research design is appropriate for this study. The Delphi design leverages unique expertise, in an iterative process, for the purpose of discovering knowledge that has not been previously discovered (Donohoe, Stollefson, & Tennant, 2012). Also, the Delphi design effectively identifies fundamental elements of a topic (Habibi, Sarafrazi, & Izadyar, 2014). Key indicators of a NSPPP are fundamental elements of an effective NSPPP. In addition, the Delphi design is optimized for the development of knowledge frameworks (Skulmoski et al., 2007).

When considering the status and leadership qualities of the sample group, the possibility exists of certain leaders overpowering the group. One of the primary desirable characteristics of the Delphi method is the anonymity of the panelists as they participate in the consensus process, which mitigates the before-mentioned risk (Fletcher & Marchildon, 2014).

Justification of the appropriateness of the modified Delphi design. The research study is a modified Delphi design. The difference between an original Delphi and a modified Delphi occurs at the beginning of the process. In a modified Delphi, the initial questions are more relevant to the study purpose (Wood et al., 2013). Relevance occurs from the pre-Delphi literature reviews, interviews, and/or a pilot group (Chenail, 2011). This pre-work ensures that the senior leaders' time is optimized in that they start Round 1 with questions crafted from previous research studies (Chenail, 2011).

The modified Delphi design is appropriate for this study for two reasons. First, it limits the time required to reach consensus. It is expected that the time required to accomplish a traditional Delphi study, reach consensus, and answer the research questions would prohibit many of the prior and current NSPPP leaders from participating. By using a modified Delphi design, the first round directly led to consensus development versus relevant question development. The time saved by reducing the study length by one round may have encouraged more leaders to participate. Second, because there were very qualified individuals ready to act as the pilot panel, having a round dedicated to developing relevant questions was a poor stewardship of time.

Research Questions

The stated purpose of this study was the development of a framework that characterizes an effective NSPPP. Critical to the framework development was the identification and prioritization of indicators that make a NSPPP effective. One research question guided this study. The sub-questions guided the creation of Delphi questions designed to build consensus among panel members, answer the research question, and accomplish the purpose of the research study.

RQ1: What key indicator framework best characterizes an effective NSPPP?

SQ1: What are the key result indicators that characterize an effective NSPPP?

SQ2: What is the priority order for the key result indicators characterizing an effective NSPPP?

SQ3: What are the key performance indicators that make a NSPPP effective?

SQ4: What is the priority order for the key performance indicators that make a NSPPP effective?

Population

The population was senior leaders from both the public sector and private sector that were currently or have in the past been members of NSPPPs. A literature review did not provide statistics regarding the size of the population. However, the researcher's private sector role provided direct access to public sector and private sector leaders both leading and comprising the membership of a minimum of 31 NSPPPs. These NSPPPs include Congressional advisory boards, Presidential advisory boards, Cabinet-level advisory and fact-finding boards, national crisis response organizations, and other national security planning and response organizations.

For this study, public sector, senior leaders referred to the executive directors of the NSPPP, leaders or deputy leaders of government agencies in a NSPPP, and leaders or deputy leaders of government organizations exercising an oversight function of a NSPPP. Private sector, senior leaders referred to the CEO, chairman of the board, and vice president of a corporation that exercise considerable clout or influence in the NSPPP.

Sampling

There is no consensus in literature regarding the proper sample size of a Delphi study (Hsu & Sandford, 2007). As part of their research, Hallowell and Gambatese (2010) noted most Delphi studies averaged between 8 and 16 panelists. Although this will result in a small sample size, there is no correlation between the effectiveness of the study and the number of Delphi panelists (Hallowell & Gambatese, 2010). The most important variable in a Delphi study is the expertise of the panel member (Hallowell & Gambatese, 2010).

The researcher assumed that a panel member would accomplish all rounds of the Delphi study; however, it was also understood that each panel member is also a senior leader in industry or the public sector. With this leadership responsibility, there was an expectation that a few of the participants would not take part in each round. Prior research identified an average attrition rate of approximately 25-30% (Donohoe & Needham, 2009). The researcher expected to have a sample size of 20 experts to account for this attrition and maintain a sample size no smaller than 14, with the understanding that study validity required a minimum sample size of eight (Hallowell & Gambatese, 2010).

This study used a purposive sampling method to select an initial cadre of senior political and corporate leaders of NSPPPs (Guarte & Barrios, 2006). Selection of the initial cadre was

subjective on the part of the researcher based on more than 14 years of experience being a member of numerous NSPPPs. For this study, selection criteria included former or present leaders of a NSPPP, public sector and private sector leaders who were or are members of a NSPPP, academic leaders that have published on effective or ineffective NSPPPs, and public sector and private sector leaders who were or are members of a Presidential or Cabinet-level commission.

Because the overarching population of senior government and private sector leaders is hard-to-reach via their social status, snowball sampling was used to recruit the remaining Delphi panel members (Sadler, Lee, Lim, & Fullerton, 2010). Each of these senior government and private sector leaders has assistants and subordinates whose sole responsibility is to limit access to the leader. However, each leader also has trusted relationships that allow one leader to have direct access to another leader. A great example is the President of the United States. An ordinary United States citizen does not have direct access to the President. However, another world leader (e.g., United Kingdom Prime Minister) does have direct access. These trusted relationships link many of the senior government and private sector leaders. Snowball sampling is effective in accessing these hard-to-reach groups (Noy, 2008). Snowball sampling leverages the trusted relationship between the initial cadre member and a hard-to-reach individual in the cadre member's social network (Sadler et al., 2010). Snowball sampling is one of the more common sampling approaches for Delphi studies that rely on members of a group that are not readily identified or accessible (Habibi et al., 2014). For this study, the initial cadre of senior government and private sector leaders not only recommended four additional leaders to be part of the study, but also brokered direct contact to those recommended leaders.

Informed Consent and Confidentiality

Every panelist received an informed consent form (Appendix A). Each panelist signed the consent form prior to starting Delphi Round 1. It was not expected that the study would collect any privacy-related information. However, if any privacy data was collected, the researcher took appropriate measures to safeguard the information. The researcher respected the rights of a panelist engaged in the Delphi research effort and followed all laws associated with human research. At the end of the final Delphi round, each panelist received a letter expressing the researcher's appreciation, assurance of continued confidentiality, and instruction on how to acquire the results of the study.

Regarding confidentiality, both the informed consent form (Appendix A) and the confidentiality statement (Appendix B) provide detailed information regarding the type of personal information required, safeguards used, and final destruction process. The informed consent form also informed the panelists that the findings of the study may be published. Although generalizations of the panelists' expertise and experience will be part of the published work, no information is published that will either overtly state or subtly allow the reader to discern the identity of the panelists.

The electronic nature of the study facilitated anonymity (Lindqvist & Nordanger, 2007); however, electronic transmissions and storage have a poor historical precedent of privacy safeguards. The informed consent form describes the following safeguards: All individual-specific information is encrypted and stored in a password-protected file. Data backup is via Carbonite, which claims the strongest safeguards possible. In addition, the panelists' identity and critical personal information (e.g., name, address, phone number, etc.) is stored hard copy

only in a rotary dial combination safe. Storage is for a period of three years. At the end of three years, the hard-copy data will be shredded via crosscut shredder. The soft-copy data will be electronically shredded and overwritten at least ten times.

Geographic Location

There was no predominant geographic location for the Delphi panelists; however, many of the NSPPP panelists reside in the Washington, DC area. The remaining panelists reside across the continental United States. In addition, residing in a geographic location does not infer that the panelists are static to that location. Many of the panelists continue to sit on Fortune 500 Board of Directors, take part in national advisory boards, and lecture. The geographic separation and the dynamic travel schedules of the Delphi panelists necessitated the use of electronic participation methods. Electronic media provides an excellent mechanism to link geographically separate panel members so that they can collaborate and systematically address difficult problems and issues (Lindqvist & Nordanger, 2007). According to Sparrow (2011), an e-Delphi approach is appropriate to explore issues that are complex and/or have many possible solutions. Because of its electronic nature, the e-Delphi method provided the panelist with the convenience and flexibility required to allow participation (Donohoe et al., 2012).

Instrumentation

The modified Delphi method leverages unique expertise, in an iterative process, to discover knowledge that has not been previously discovered (Skulmoski et al., 2007). The modified Delphi process was the instrument used to collect unique insight from subject matter experts to identify and prioritize the key indicators of an effective NSPPP. Each panelist provided insight to three rounds of research questions.

Purposive sampling was used to select a sub-group of three NSPPP experts to serve as a pilot test panel (Clibbens, Walters, & Baird, 2012). The three members of the test panel are not only experts in NSPPPs, but also possess additional qualifications commensurate with a proven ability to think critically (e.g., doctorate degree, national policy development, etc.). A pilot test panel provides the research with a mechanism to develop and enhance the first round of questions (Chenail, 2011). A pilot test panel is most valuable when it is used before each Delphi round of questioning (Clibbens et al., 2012). However, using a test panel before each round adds additional time to the overall study (Clibbens et al., 2012). Because of the caliber of the Delphi panelists, and associated demands on their limited time, a delay would damage the ability of the researcher to recruit panelists. For this research study, the test panel will retain the same members for the study's duration and they will only evaluate the relevance and appropriateness of the Round 1 questions. They were notified in advance of the criticality of their support and agreed to fulfill their duties within a constrained time period. For Round 1, the pilot test panel received the proposed questions and provided the researcher with feedback and recommendations. Both the feedback and recommendations ensure that the research questions elicit the necessary responses (Chenail, 2011). Because the pilot test panelists were peers of the Delphi panelists, the pilot test panel ensured that the structure and syntax of the questions were appropriate for the caliber of Delphi panelists (Clibbens et al., 2012). The pilot test panelists also participated in all rounds of the Delphi study as part of the larger Delphi panel.

Data Collection and Analysis

The Delphi method represents an iterative process (Hallowell & Gambatese, 2010). Each round of questions leverages the findings from the previous round. For this research study, three

rounds were planned; however, additional rounds were available if necessary to answer the research questions. In a Delphi study, answering of the research questions occurs when consensus is reached (Diamond, et al., 2014). According to research accomplished by Diamond et al. (2014), the most common definition for consensus in a Delphi study is a pre-determined percent in agreement with the findings. For the purpose of this study, consensus was defined as 80 percent agreement on the key indicators of an effective NSPPP and in their priority order.

For this research study, data collection was a combination of open-ended survey questions, multiple choice survey questions, Likert scale questions, and priority/rating questions. This research study leveraged the online survey tool SurveyMonkey. Using an online survey tool is valuable in collecting, analyzing, and publishing research studies (Massat, McKay, & Moses, 2009). According to published product literature from the vendor, SurveyMonkey uses a SSL/TLS encryption process to provide a secure environment to conduct the Delphi study.

Round 1. Round 1 began with the pilot test panel examining potential survey questions. The initial questions were crafted from the experience of the researcher, the literature review, and any pilot studies conducted (Chenail, 2011). Upon getting feedback from the pilot test panel, the questions were inputted into the SurveyMonkey tool. The Delphi panelists received an email directing them to the SurveyMonkey survey site. The Round 1 survey focused on gaining panelist insight regarding the research question and sub-questions. The panelists provided narrative answers to the open-ended research questions.

The narrative texts of Round 1 answers were analyzed via NVivo software. The University of Phoenix provides licensed access to NVivo version 10. NVivo provides a consistency in data analysis and eliminates the possibility of researcher bias and possible errors

associated with data overload (Bergin, 2011). The researcher used the NVivo analysis tool to identify NSPPP key indicators in the narrative answers via the following analytic process. First, the researcher coded the survey answers to identify free nodes. Free nodes are identified subjects or focuses in the narrative (Bergin, 2011). Next, the researcher used NVivo to accomplish a text search query to identify the number of occurrences of a specified node (Bergin, 2011). The product of Round 1 was a list of free nodes from which key indicators of an effective NSPPP were ultimately identified. From this initial list, Round 2 open-ended, multiple choice, ranking, and Likert scale questions were formulated.

Round 2. Round 2 began with the Delphi panelists receiving an email directing them to the next SurveyMonkey survey. Round 2 data collection was comprised of two parts. Part one provided the panelists with the Round 1 free nodes identified via the NVivo tool. The panelists rated the nodes via responses to multiple choice, Likert scale, and ranking questions. The panelists added additional details via responses to open-ended and end-of-question comments. Part two was open-ended, Likert scale, and multiple choice survey questions designed to bring fidelity to the nodes (Bergin, 2011). NVivo analysis was used to bring fidelity to the Round 1 nodes and started identifying attributes and themes of a successful NSPPP and ultimately specific indicators of an effective NSPPP.

Round 2 also included a trap question. For the majority of the Delphi panelists, time is a scarce commodity. However, if the Delphi panelists speeded through the survey without providing thoughtful answers to the questions then the data and findings of the survey could be inaccurate. The inclusion of a trap question or item can give the researcher an indication that the

panelist is speeding through the survey without thinking through the answer (Cojuharenco, Shteynberg, Gelfand, & Achminke, 2012).

Two statistical tools were used to analyze Round 2 numerical data. The SurveyMonkey tool includes a statistical tool that displays numerical data in basic bar graphs. IBM's SPSS tool was used for both its descriptive statistical capabilities, but also its correlation capabilities.

Round 3. The researcher expected the complete Delphi process would require three rounds; however, the terms of agreement with the panelists stipulated the possibility of four rounds. The panelists understood that once consensus was reached regarding the identified key indicators of an effective NSPPP, the research portion of the study would end (Diamond et al., 2014). A final list of key indicators was compiled and entered into SurveyMonkey. The Delphi panelists received an email directing them to the last SurveyMonkey survey. The survey listed the identifiers of an effective NSPPP and ask the panelists to provide a rank-order. The SurveyMonkey software suite includes statistical analysis tools necessary to finalize the key indicator rank-order. The researcher also used IBM's SPSS tool.

Post-survey analysis. Once consensus was obtained regarding key indicator identification and prioritization, a framework was created to characterize an effective NSPPP. The framework contained leadership and organizational characteristics of an effective NSPPP. The framework also accounted for qualifiers related to differences in public sector and private sector definitions, culture, responsibilities, and priorities.

Validity and Reliability

The purpose of this modified Delphi study was the development of an effective NSPPP framework from Delphi panel identified and prioritized NSPPP identifiers. Also, the study used

a qualitative approach to collect insight, judgments, and experience of the Delphi panelists. Any instrument that measures any type of social science research must be both valid and reliable (Drost, 2011). Validity is the certification that the research instrument will accomplish what it is intended to accomplish (Drost, 2011). Reliability is the consistency of the research instrument to come up with the same result each time, assuming the object being measured does not change (Drost, 2011). According to research by Tomasik (2010), the Delphi method is very reliable; however, validity requires that certain conditions are met.

Validity. One of the characteristics of a Delphi method is its capability to collect and analyze both qualitative and quantitative data (Skulmoski et al., 2007). Although this study used a qualitative approach, many of the multiple choice, ranking, and Likert survey questions received statistical analysis. For those findings where both qualitative and quantitative analysis can be performed, triangulation was an applicable validation process. Triangulation is the cross-checking and corroboration of study-related data (Caruth, 2013). Triangulation uses two research methods to mitigate the weaknesses of each individual method and capitalize on the strengths of each method (Abowitz & Toole, 2010). Triangulation can increase the validity of a research study and aid in the overall understanding of the research finding (Bekhet & Zauszniewski, 2012).

Content validity. Because no scholarly consensus exists as to what defines an effective NSPPP, the issue of content validity needs to be addressed in this research study (Drost, 2011). Content validity refers to the extent of consensus among the panel members regarding key indicators of an effective NSPPP (Glassel, Kirchberger, Kollerits, Amann, & Cieza, 2011). In a Delphi study, content validity is directly tied to the expertise of the panel (Libby et al., 2013).

Each Delphi panelist will not only be a renowned expert in their particular industry or government agency, but also exceptionally experienced in national security public-private partnerships. Beginning in Round 2, the panelist rated the narrative nodes and themes from the previous round. On those answers that had measurable consensus, content validity will be satisfied (Heimlich, Carlson, & Storksdieck, 2011).

Internal validity. Internal validity addresses the validity of the research performed in the study (Jimenez-Buedo, 2011). Primary threats to the internal validity of a Delphi study are selection of the panelists, unequal treatment of the panelists, and rivalry among the panelists (Drost, 2011). Selection of the panelists was a result of the researcher's experience, recommendations of renowned experts, and a sample size to mitigate researcher bias. The anonymous nature of a Delphi study removes the threat of rivalry and potential unequal treatment of the panelists (Hallowell & Gambatese, 2010). The expert panel provides the foundation of content validity and the anonymous nature of the Delphi study provides the foundation of internal validity.

External validity. External validity addresses the extent that the research findings are generalizable to other partnerships, whether they be regional, industry only, foreign partners, etc. (Jimenez-Buedo, 2011). Tomasik (2010) presents the following caveat that applies to this research study. Because a Delphi study relies on panels of experts of a specific expertise (e.g., present and former leaders of NSPPPs), research findings are generalizable only to the extent that the population remains consistent to the original research population. Further research is needed to determine if the findings from this research translates to public sector-private sector partnerships that are not at the national security or strategic level.

Reliability. The three measurement tools used in this research study have an established reliability record regarding use in critical peer-reviewed research. Online survey tools like SurveyMonkey are reliable tools designed to collect, analyze, evaluate, assess, and develop policies and programs (e.g., NSPPPs) (Massat et al., 2009). NVivo is a recognized and reliable qualitative analysis tool (Bergin, 2011). SPSS is the standard statistical tool used in research. Likert scales are recognized and reliable quantitative data analysis tools (Edwards & Edmondson, 2011).

Interrater reliability. Because the Delphi study relies on the judgment of experts, the reliability of these judgments needs to be assessed (Drost, 2011). Beginning in Round 2, the panelists rated the results of the previous round narrative answers. The intraclass correlation coefficient between the panelists' ratings identified the reliability of a specific panelist. The reliability of the panelists as a group was also determined via correlation calculation (Dierdoff & Wilson, 2003).

Internal consistency. Internal consistency measures the reliability of the instrument to consistently measure an item or key indicator as part of the test (Drost, 2011). Cronbach's alpha is a common measurement of the internal consistency of a questionnaire or survey (Tavakol & Dennick, 2011). For this study, Cronbach's alpha was used to evaluate whether the Delphi questions measure the same concept: what are the key indicators of an effective NSPPP.

Summary

The purpose of this qualitative study using a modified Delphi design was the development of a framework that characterizes an effective NSPPP. Critical to the development of the framework was the Delphi panelists' consensus regarding the identification and

prioritization of NSPPP key indicators. Because there was no prior research that identifies the key indicators of an effective NSPPP, this research study required the Delphi design. The Delphi design leverages unique expertise, in an iterative process, to discover knowledge that has not been previously discovered (Skulmoski et al., 2007).

The study used the SurveyMonkey tool to survey prior and current senior leaders and members of NSPPPs. The internet-tool mechanism provided the geographically dispersed, time constrained panelists the flexibility to accomplish to the survey on their schedule. A test panel provided recommendations on effective and appropriate questions prior to Round 1. The senior leaders took part in three rounds of questions designed to identify key indicators of an effective partnership. As a result of the three rounds of questions, the senior leaders not only identified the key indicators, but also prioritized the indicators.

NVivo software was used to analyze the qualitative data, identifying nodes and themes in the narrative answers. These nodes and themes became part of the next round's survey questions. Answers to the survey questions resulted in added fidelity to the nodes and themes and a prioritization of NSPPP identifiers. Ultimately, data analysis enabled framework development that characterizes an effective NSPPP.

Chapter 3 contained in-depth narrative regarding the research design and method, the appropriateness of these processes, and research questions. Chapter 3 also discussed the validity and reliability of the study. Chapter 4 provides the data results of the modified Delphi rounds.

Chapter 4

Data Collection Procedures, Analysis, and Results

The purpose of this modified Delphi study was the development of a framework for an effective NSPPP via the identification and prioritization of NSPPP key indicators. Chapter 1 established the need for a framework that United States leaders can use to create NSPPPs to effectively prepare for or respond to both man-made and natural disasters. The Chapter 2 literature review identified the gap in research that this study's research question addresses. Chapter 3 provided details on the modified Delphi design and its appropriateness for this study. Chapter 3 also evaluated the validity and reliability of the study's research tools and methodology. Chapter 4 explains the data collection methods used, provides data analysis, and presents the results of the three modified Delphi rounds. This chapter also describes the demographics of the 18 Delphi panelists.

The objective of this modified Delphi study was to use three survey rounds to draw-out and amass the personal experiences and lessons learned of a panel of 18 public sector and private sector leaders that have either led or were members of NSPPPs. Analysis of the Round 1 survey answers guided the development of questions for Round 2. Round 2 guided the development of Round 3 questions. This modified Delphi study used three survey rounds to guide the panelists to consensus on the key performance and result indicators; thereby, leading to an answer to the study's research question. As previously stated, this study uses 80% agreement as a determiner of consensus.

One topic requires additional narrative at the beginning of this chapter. This study's research question focused on the development of a singular framework of an effective NSPPP.

This focus was a direct result of the literature review. However, a common thread in qualitative research is the need to follow the data wherever it goes (Dickie, 2003). This means that there may be times when the data leads to a surprise that the researcher did not expect (Chessman & Heminger, 2009). For this study, the literature review supported the need for a singular framework. However, the data elicited from the Delphi panelists indicated the presence of a time component to a NSPPP response. This was a surprise finding that the researcher did not anticipate, but confirmed via questions and data analysis results in Rounds 2 and 3. Although covered more in-depth in Chapter 5, this surprise resulted in the need for two frameworks versus one.

Data Collection Procedures Reviewed

This study's literature review found little to no peer-reviewed research related to an effective NSPPP. However, there was adequate research on the general topic of partnerships to develop Round 1 questions. A pilot test panel of three academics with doctorate degrees, published in national security research, and continual contact with both public sector and private sector leaders reviewed the Round 1 questions to ensure that the questions were appropriate for an audience of national and global leaders. Round 1 questions were open-ended that required narrative answers. Round 2 and Round 3 used multiple choice, Likert scales, rank order, and short narrative questions. All questions aligned with the study's research question: What key indicator framework best characterizes an effective NSPPP? The data collection procedures facilitated a consensus answer to this research question.

Participant Selection

Only senior public sector and private sector leaders that possessed certain qualifications and experience received invitations to take part in this study. Senior leaders refer to the executive directors of a NSPPP, leaders or deputy leaders of government agencies in a NSPPP, and leaders or deputy leaders of government organizations exercising an oversight function of a NSPPP. Private sector, senior leaders refer to the CEO, chairman of the board, and vice president of a corporation that exercise considerable clout or influence in the NSPPP. Academic leaders must be published on topics related to partnerships, leadership, and national security. This survey also invited public sector and private sector leaders who were or are members of Presidential or Cabinet-level commissions.

On November 17, 2015, a population of 23 senior public sector-private sector executives was invited to be part of the Delphi study. This group recommended four additional leaders for a total of 27 leaders. Each potential panelist received a formal invitation that included an informed consent form (Appendix A). All potential panelists were aware that they could depart from the panel at any time. Eighteen panelists returned the authorization form to formally accept a panel position. Eighteen panelists exceeded the 8 to 16 average of most Delphi panels (Hallowell & Gambatese, 2010). At no time did the number of responses per round number less than the eight minimum for a valid survey (Hallowell & Gambatese, 2010).

Demographics

For a Delphi study to be valid, the panelists must possess unique expertise that is relevant to the study's research question (Skulmoski et al., 2007). For this study, panelists possessed between 10 and 38 years of senior leadership, led more than 20 NSPPPs, sat on Presidential-level

commissions, and reside on Fortune 500 Boards of Directors. Five panelists had senior-level experience in both the public and private sectors, six panelists had only private sector expertise, and four had only public sector experience. Table 1 provides the demographic data per panelist.

Table 1

Delphi Panel Demographics

Panelist	Sector	Years of Leadership	NSPPP Experience
DP1	Both	29	NSPPP Leader Presidential Commission
DP2	Both	28	NSPPP Leader Fortune 500 Board of Directors Presidential Advisory
DP3	Private Sector	13	NSPPP Member Fortune 500 Leader
DP4	Private Sector	25+	NSPPP Member Fortune 500 Leader
DP5	Private Sector	21	NSPPP Member Fortune 500 Board of Directors Presidential Commission
DP6	Public Sector	24	NSPPP Leader x3
DP7	Both	30+	NSPPP Leader NSPPP Member
DP8	Both	21	NSPPP Member
DP9	Public Sector	12	NSPPP Leader
DP10	Public Sector	10	NSPPP Leader
DP11	Private Sector	20+	NSPPP Member Fortune 500 Advisor
DP12	Both	38	NSPPP Leader x5 Presidential Commission Fortune 500 Advisor
DP13	Private Sector	20	NSPPP Leader
DP14	Private Sector	16	NSPPP Member Fortune 500 Leader
DP15	Public Sector	17	NSPPP Leader x3
DP16	Academic	14	Published
DP17	Academic	12	Published
DP18	Academic	13	Published

Data Collection

The formal data collection began with the pilot test panel on December 4, 2015 and ended on December 19. The three member pilot test panel received the proposed Round 1 questions on December 4. They had a deadline of December 8 to submit recommendations and feedback. All recommendations and feedback arrived before the deadline.

The panelists received Round 1 access on December 9, 2015. The delivery was via an email from SurveyMonkey with an embedded link to the survey. However, feedback from the panelists indicated that some of the panelists' email servers mistook the SurveyMonkey email as spam. For those that had this issue, the researcher sent a second email using a University of Phoenix email account. This delivery protocol was used for all Delphi rounds. The panelists had a December 11 deadline and fifteen of the eighteen panelists submitted before the deadline. Round 1 responses were analyzed and the Round 2 questions sent on December 12. Because the Round 2 questions were a direct result of the Round 1 responses, a Round 2 pilot test panel was unnecessary. Round 2 had a deadline of December 14 and 12 panelists responded by the deadline. Round 2 responses were analyzed and Round 3 questions sent on December 15. Round 3 had an original deadline of December 16; however, a few of the panelists asked for an extension because of overseas travel. The deadline was extended to December 19 and 11 panelists responded by the deadline. Figure 1 presents a graphical representation of this study's Delphi and data analysis process.

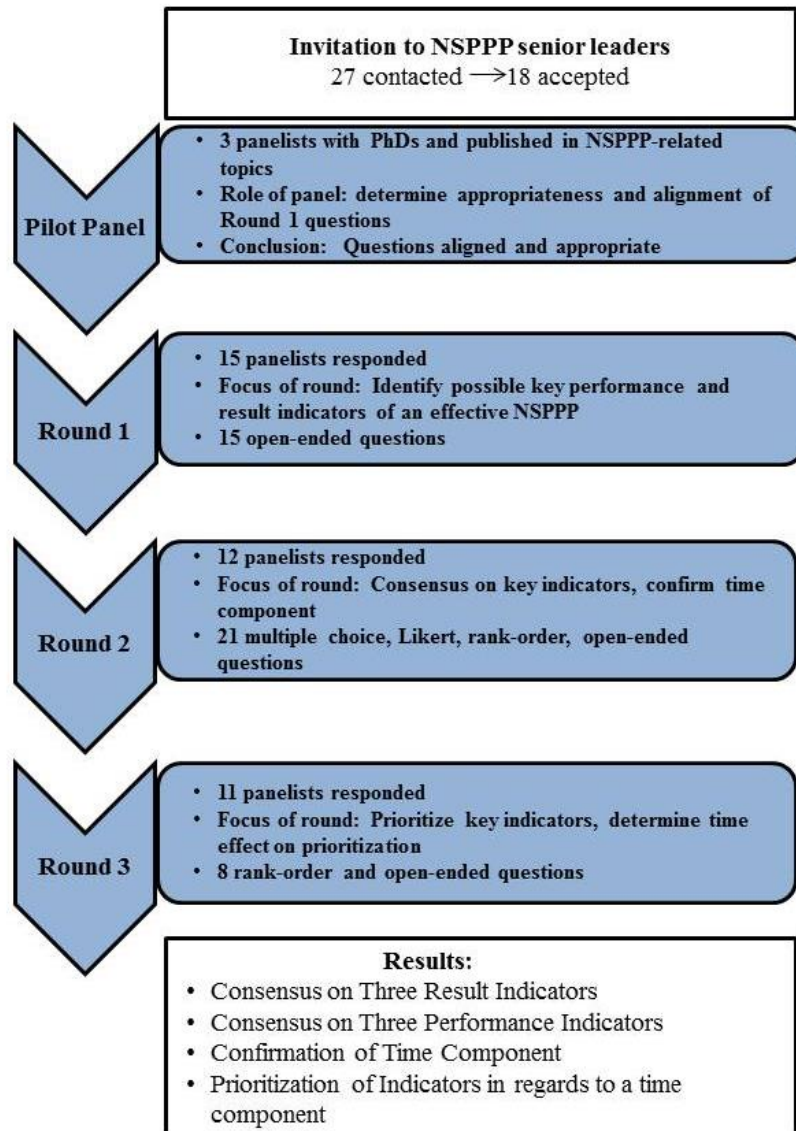


Figure 1: Delphi Process

Data Analysis

This study used non-parametric tests for data analysis. Selection of non-parametric tests occurred as a result of two findings via the literature review and a normality test. The overarching issue was determining if the collected data was normally distributed. Affecting the

data's normality determination was the small sample size ($n < 20$) and type of data collected (ordinal versus interval). First, the literature review identified a recommendation of non-parametric tests for small sample sizes (Boutahar, 2009). Boutahar defined a small sample as $n < 100$. Babcock, Albano, and Raymond (2012) define a small sample as $n = 20$. This study's research had a sample of $n < 20$, which makes it a small sample research effort.

Second, Round 2 and 3 of this study attempted to elicit consensus via Likert scale, rank-order, and rating questions. These questions create ordinal data versus interval data. By definition, ordinal data is not distributed normally (Schoder, Himmelmann, & Wilhelm, 2006).

Third, the researcher used the Shapiro-Wilk test to confirm the non-normality of the collected data. In current research, the Shapiro-Wilk test is the preferred normality test for small samples (Oztuna, Atilla Halil, & Tuccar, 2006). For this research study, a Shapiro-Wilk significance level of $< .10$ rejected the null-hypothesis that the data is normally distributed (Razali & Wah, 2011). For applicable questions in Rounds 2 and 3, the Shapiro-Wilk test confirmed that the majority of data collections had non-normal distributions (Appendix C).

Pilot Test Panel Results

A panel of three published academics received the proposed Round 1 questions on December 4, 2015. Their role was to ensure that the Round 1 survey questions were appropriate for the Delphi panel members and were aligned with research question. The consensus of the pilot test panel was that the questions were appropriate for the caliber of the Delphi panel. The pilot test panel provided seven recommendations to make the questions more effective (Appendix D).

A pilot test panel was not accomplished prior to Round 2. The stated purpose of the pilot test panel was to ensure that the Delphi survey questions were appropriate for the caliber of the Delphi panelists and ensure that the questions aligned with the study's research question. The pilot test panel was not convened for Round 2 for two reasons. First, the pilot test panel was unnecessary. Round 2 questions were a direct result of the Delphi panelists' narrative answers, which made the questions inherently appropriate for the caliber of the panel. Also, because the Round 2 questions linked back to Round 1 questions, Round 2 questions were inherently aligned with the study's research question. Once again, this made a second pilot test panel unnecessary.

Second, conducting a second pilot test panel would have jeopardized the research study. Many of the Delphi panelists had limited availability. A second pilot test panel would have added four to five additional days to the study. This additional time spent for an unnecessary assessment of inherently appropriate and aligned survey questions would have jeopardized many of my panelists' participation. Possibly resulting in less than the 8 minimum panel members required for a valid Delphi study.

Results per Delphi Round

Round 1. The purpose of Round 1 was to use questions formulated from the literature review to identify possible key result and performance indicators of an effective NSPPP.

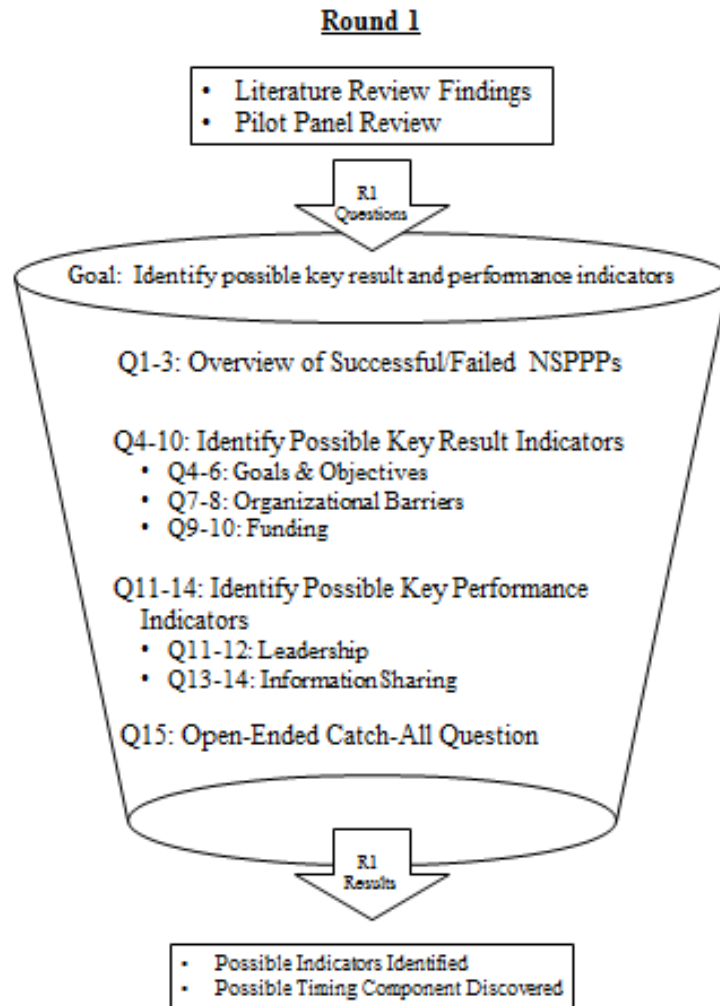


Figure 2: Round 1 Process

On December 9, 2015, the Delphi panelists received an announcement that the Round 1 survey questions were available. Panelists received this announcement through both the SurveyMonkey notification tool and an email from the researcher’s university email account. Round 1 had 15 open-ended questions that required narrative answers (Appendix E). The researcher used NVivo 10 to identify nodes in the narrative answers. As described in Chapter 3,

NVivo-derived nodes are identified subjects or focuses in the narrative answers. Fifteen of the eighteen panelists completed the survey. The following are the results of the Round 1 questions.

Questions 1 through 3 were overview questions designed to capture the panelists' initial and strategic thoughts on the reasons why a NSPPP succeeds or fails. After combining all NVivo 10 nodes for questions 1 through 3, the following strategic indicators relate to both successful and unsuccessful NSPPPs (Table 2). To make this list, the reason had to appear on a minimum of two panelists responses.

Table 2

Top Strategic Indicators of a NSPPP

Value or benefit to all partners

Leadership

Goals and objectives

Authority to address or usurp established bureaucracies

Communications

Questions 4 through 10 focused on identifying key result indicators of an effective NSPPP. A key result indicator shows how well an organization meets stated goals and objectives (Shabaninejad et al., 2014). Questions 4 through 6 focused specifically on the goals and objectives of a NSPPP. Table 3 represents the Delphi panelists' characterization of the goals and objectives of an effective NSPPP.

Table 3

Goals and Objectives Characterized in an effective NSPPP

Clear

Achievable

Defined

Understood

Aligned

Question 6 (Appendix F) further explored the goals and objectives of an effective NSPPP over the lifespan of the NSPPP. The purpose of the question was to determine if a NSPPP's goals and objectives are static or dynamic. Of all the Round 1 questions, this question had the most diverse answers and gave the first indication of a time component regarding an effective NSPPP. There was agreement that a crisis or issue that leads to the creation of the NSPPP is dynamic versus static; however, there was no majority of opinion regarding the dynamic nature of the crisis' impact to the NSPPP's goals and objectives. Some panelists stated that goals and objectives should never change. Others strongly stated that the goals and objectives must change. Round 2 questions more clearly addressed this topic.

As determined via the literature review, the institutional theory with a partnership organizational construct best mitigates a partnership's evolution into a professional bureaucracy, effecting an organization's environment of trust and information sharing (Wang et al., 2014). The literature review identified trust and a lack of information sharing as possible causes of an ineffective NSPPP (Givens & Busch, 2013). Questions 7 and 8 focused on organizational

barriers to an effective NSPPP. The questions explored the topic of the United States Government as a NSPPP enabler or detractor. The narrative answers (Appendix G) had the recurring word of “authority”. Although the term “authority” was not defined for the panelists, their narrative answers related the concept of authority to the capability of the NSPPP leader to overcome the entrenched bureaucracies, culture, and other barriers to effective collaboration between the private sector and the United States Government. Table 4 lists the terms that the panelists used to characterize the United States Government bureaucracy’s impact on a NSPPP.

Table 4

Descriptors of a Bureaucracy’s Impact on a NSPPP

Descriptors of bureaucracy’s impact on a NSPPP

Confusion

Cultural

Constraining

Detracting

Monopoly

Obstacle

The literature review identified a possible link between an ineffective NSPPP and funding (Pines et al., 2013). Questions 9 and 10 explored the topic of funding and resource availability as an indicator of an effective NSPPP. The panelists had consensus that adequate funding was critical to an effective NSPPP (83%). They also had consensus that NSPPP funding will always be limited (89%). However, although not a consensus item, the majority of panelists

inferred that the greater the national security emergency, the more funding and resources would be available (Appendix H).

Questions 11 through 14 focused on identifying key performance indicators. Key performance indicators enable an organization to accomplish stated goals and objectives (Shabaninejad et al., 2014). The literature review identified a link between ineffective leadership and an ineffective NSPPP (Fry-Pierce & Lenze Jr., 2011). Questions 11 and 12 concentrated on the topic of leadership in a NSPPP. Question 11 (Appendix I) asked panelists to characterize the importance of leadership to the success or failure of a NSPPP. This was the only question where there was 100% consensus. The overwhelming response was that leadership was one of the most critical components in an effective NSPPP.

This study's literature review identified the servant leadership theory as most relevant to national security partnerships. Latham (2013) identified nine behaviors and five characteristics of a servant leader. Question 12 asked the panelists to characterize foundational leadership qualities necessary for an effective NSPPP. Table 5 lists the most desirable leadership qualities for an effective NSPPP. The qualities with an asterisk are qualities found in a servant leader. Although not at the level of consensus, the leadership quality of good communicator was in 60% of the answers. Of interest, the leadership quality of "trusted" was not a common response.

Table 5

Effective NSPPP Leadership Qualities

Communicator*	Decisive*	Listener*	Vision*
Collaborator*	Integrity*	Action Oriented	Moral Courage
Selfless*	Experienced*	Focused*	Motivational*
Organized*	Passion	Patience	Respect*

As identified in the literature review, sharing of information is one of the primary purposes of an effective NSPPP (Carter, 2008). Questions 13 and 14 focused on the topic of information sharing and transparency. Question 13 (Appendix J) asked the panelists to characterize the importance of information sharing and transparency. There was consensus that information sharing and transparency is critical to an effective NSPPP (93%). However, there are numerous barriers to effective information sharing in both the public and private sectors. Table 6 lists the most common barriers identified in the survey answer.

Table 6

Barriers to Effective Information Sharing and Transparency

Security of the information (public sector: classification, private sector: proprietary)

Lack of trust

Organizational culture

Bureaucracy

Legal issues

Question 15 provided the panelists with a forum to discuss additional NSPPP issues and lessons learned, which the panelists believed needed special emphasis. Each panelist provided narrative; however, there was only one new issue. One panelist stated that further questions need to better qualify the type of national security disaster that is the catalyst for the NSPPP formation. In addition, one panelist focused on a NSPPP lifespan. Also, four panelists discussed the need for NSPPP strategic planning before implementation, indicating they were looking at a national security issue that had an initial lead-time for planning and implementation.

These comments allude to a possible time component in a national security crisis response. However, the exhaustive literature review associated with this study did not identify the existence of this time component. If the Delphi panelists' insight were correct then key performance and result indicators would be different in a NSPPP created to address a crisis response event (e.g., 9-11 terrorist attack, Hurricane Katrina, etc.) versus a long-term response event (e.g., possible cyber-attack, Y2K response planning, etc.). Difference in indicators in relationship to time would mean that advocating a singular framework to address all national security issues would be in error. Question in Round 2 will either validate or disprove a time component to a national security response.

Round 2. The purpose of Round 2 was to use questions formulated from Round 1 responses to identify key result and performance indicators, determine if these indicators have consensus, and confirm the need to account for a time component in a national security crisis response.

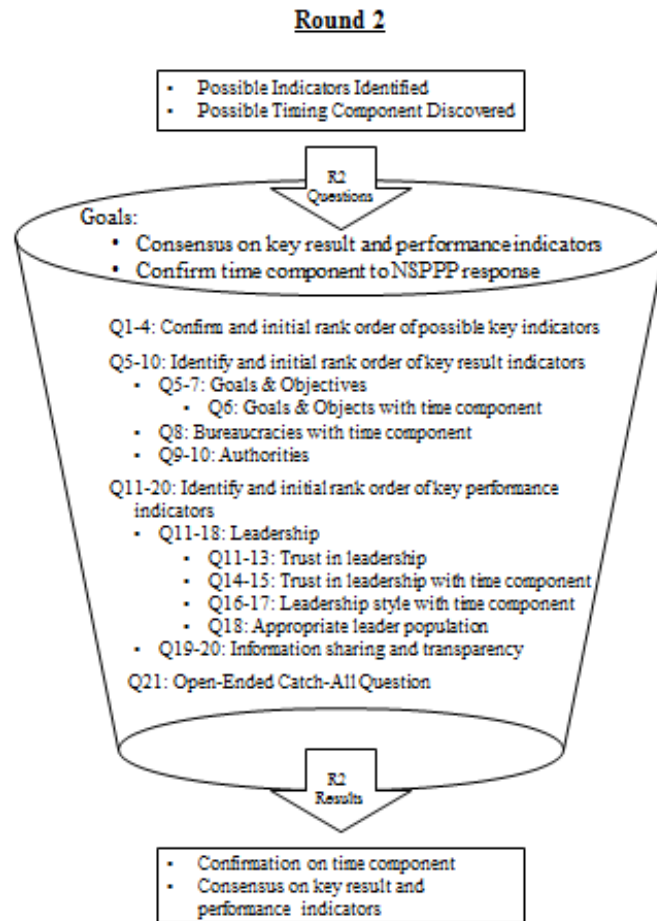


Figure 3: Round 2 Process

The Round 2 survey was released on December 12, 2015 via the SurveyMonkey distribution tool and university email. There were a total of 21 questions that required multiple choice, Likert scale, rank-order, and narrative answers (Appendix K). The questions brought fidelity to the answers given in Round 1 and provided data critical to answering the study's research question. Twelve of the eighteen panelists completed the survey. The following are the results of the Round 2 survey.

Questions 1 (Appendix L) required the panelists to affirm the qualities associated with an effective NSPPP. The source of the qualities was via NVivo 10 analysis of Round 1 survey answers. As shown in Table 7, all qualities had consensus (80% or greater) except for the need for adequate resources. However, funding had consensus as a key indicator from Round 1.

Table 7

Qualities for an Effective NSPPP (Consensus)

Quality	Consensus (Y/N)
Strong leadership	Y (100%)
Clear goals & objectives	Y (83.33%)
Authority to act	Y (91.67%)
Unity of purpose	Y (91.67%)
Open & frank communications	Y (100%)
Shared sense of urgency	Y (100%)
Value to partners	Y (100%)
Adequate resources	N (66.67%)
No egos among partners	Y (91.6%)

Of note, the panelists had consensus (91.67%) that the egos of the partners had little to no impact on the success or failure of the NSPPP. This quality was a trap inserted by the researcher. The ego of the leader was one of the effective NSPPP determiners identified from Round 1 Question 1 analysis. However, the quality listed in this question focused on the egos of the partners. If the panelists were speeding through the survey, they probably would have failed to

notice the difference in terms (leaders versus partners). However, with the strong consensus that this quality had little to no importance, the researcher can conclude the panelists provided thoughtful answers to the survey questions (Cojuharenco et al., 2012).

Question 2 required the panelists to rank order the qualities associated with an effective NSPPP. Table 8 displays the rank order as derived from the median, mode and Inter-Quartile Range (IQR) (Appendix M). Two qualities have an IQR of 4.00, which indicates a possible polarization of opinions. For leadership, 42% gave a rank of 1, 67% gave a rank of 1 or 2, and 33% gave a rank of 4 or 5. For the quality of unity of purpose, the majority (55%) of rankings occurred in the 2 to 6 range.

Table 8

Qualities for an Effective NSPPP (Rank Order)

Quality	Rank Order	Median	Mode	IQR
Strong leadership	1	2.0000	1.00	4.00
Clear goals & objectives	2	2.0000	2.00	3.00
Authority to act	3	3.0000	3.00	3.00
Unity of purpose	4	4.0000	Multiple modes (2.00 smallest value)	4.00
Open & frank communications	5	5.0000	4.00	2.00
Shared sense of urgency	6	5.0000	7.00	3.00
Adequate resources	8	6.5000	Multiple modes (3.00 smallest value)	3.00
Value to partners	7	7.0000	7.00	2.00
No egos among partners	9	8.0000	8.00	2.00

Questions 3 required the panelists to affirm qualities associated with an ineffective NSPPP (Appendix N). As in the previous results, the source of the qualities was via NVivo 10 analysis of Round 1 survey answers. As shown in Table 9, weak leadership had unanimous consensus as a cause for an ineffective NSPPP.

Table 9

Qualities for an Ineffective NSPPP (Consensus)

Quality	Consensus (Y/N)
Weak leadership	Y (100%)
Lack of common goals & objectives	Y (91.67%)
Lack of focus	Y (100%)
Bureaucracy	N (75%)
Government policies, regulations, and statutes	Y (91.67%)
Outputs versus outcomes	Y (83.33%)
Lack of resources	N (75%)
Poor communication	N (75%)

Of interest, there was consensus that government policies, regulations and statutes had a clear consensus; however, bureaucracy did not have consensus. Question 4 required the panelists to rank order the qualities of an ineffective NSPPP. Table 10 displays the rank order as derived from the median, mode and Inter-Quartile Range (IQR) (Appendix O). The results show that leadership, goals and objectives, and government bureaucracy (including policies, statutes, and regulations) rank at the top of the list. Bureaucracy had a IQR of 5.00, which indicated a possible polarization of opinions. For bureaucracy, 36% of the panelists gave a 1-2 ranking, but

27% gave a ranking of 7. Government policies were not as polarized with 91% giving a ranking between 3 and 6.

Table 10

Qualities for an Ineffective NSPPP (Rank Order)

Quality	Rank Order	Median	Mode	IQR
Weak leadership	1	2.0000	1.00	2.00
Lack of common goals & objectives	2	2.0000	1.00	4.00
Bureaucracy	3	4.0000	Multiple modes (2.00 smallest value)	5.00
Government policies, regulations, and statutes	4	4.0000	Multiple modes (3.00 smallest value)	3.00
Lack of focus	5	4.0000	4.00	2.00
Outputs versus outcomes	6	7.0000	Multiple modes (7.00 smallest value)	4.00
Lack of resources	7	6.0000	8.00	3.00
Poor communication	8	7.0000	8.00	2.00

Questions 5 through 10 focuses on identifying and prioritizing key result indicators. The literature review identified the Stafford Act of 1988 as the source of the public sector's goals and objectives in regards to major disasters and emergencies (Lucie, 2014). Questions 5 and 6 asked the panelists to review the key goals of the Stafford Act and either affirm or deny these goals are applicable to the private sector. There was consensus among the panelists (81.8%) that the private sector members of a NSPPP can use the Stafford Act. However, the private sector panelists stated that there should be verbiage inserted into the Act that addresses unique private sector equities to include sharing of responsibilities and mitigation of liabilities.

Question 6 was the first question to broach the possibility of a time component in a national security response. Question 5 demonstrated that the panelists believed that the Stafford Act goals and objectives of alleviate physical damage of the disaster, address loss of services and life, and mitigate hardship and suffering were applicable for both the public and private sector. Question 6 asked the Delphi panelists to consider a long-term national security response and craft applicable goals and objectives. Appendix P lists their responses. Unlike a short-term response that focuses on alleviating damage and suffering, a long-term response is more focused on removing established barriers to an effective NSPPP (e.g., information sharing, authorities, leadership, etc.)

The topic of static versus dynamic goals and objectives continued to be the most divisive of questions. Question 7 presented the panelists with four increments of change in goals and objectives (Appendix Q). Table 11 presents the median, mode, and IQR of the answers.

Table 11

Change in Goals and Objectives

Increment of Change	Median	Mode	IQR
Goals & objectives never change	2.0000	2.00	1.00
G&O never change, but methods to achieve success may change	2.5000	Multiple modes (2.00 smallest value)	2.00
Strategic goals never change, but objectives may change as the crisis changes	4.0000	4.00	1.50
Goals and objectives must change as the situation changes	4.0000	5.00	2.25

The panelists had consensus (90%) that a NSPPP's goals and objectives will change as the situation or crisis evolves. However, there was no consensus regarding the characterization of the change. The increment that stated both goals and objectives must change had a IQR of 2.25. This manifested the polarization of opinions regarding this topic. The majority (70%) of the panelists stated both the goals and objectives of a NSPPP change. However, panelists that had a military background were adamant that although objectives may have a change property, the strategic goals should never change.

Question 8 asked the panelists to incorporate the factor of time in regards to the crisis and the public sector's adherence to established bureaucracies and regulations (Appendix R). Analysis of the responses indicate strong consensus (90%, .25 IQR) that the government will circumvent regulations and bureaucracies in the immediate aftermath of a major disaster or emergency. Panelists who led NSPPPs immediately after the terror attacks on September 11, 2001 affirmed that this occurred. There was also consensus (95%) that the longer the timespan from the major disaster or emergency, the more negative influence from established bureaucracies and strict adherence to regulations occurs. This result also applies to NSPPPs engaged in long-term research efforts designed to prepare to respond to an emerging threat or situation. Table 12 presents the results in the form of median, mode, and IQR. The scaling of the questions is as follows: (1) Public sector will act as an enhancer and most barriers will be circumvented. (2) Public sector will act as an enhancer as long as all established barriers are followed. (3) Public sector's strict adherence to established barriers act as a detractor to an effective NSPPP.

Table 12

Time versus Bureaucracy

	Median	Mode	IQR
Imminent Threat	2.0000	2.00	1.25
Attack Occurred	1.0000	1.00	.25
Time Transpired	2.0000	2.00	1.00
Potential Threat	3.0000	3.00	1.00

Questions 9 and 10 asked the panelists to consider the appropriate level of authority vested in the NSPPP oversight organization. Although there was no consensus, the majority (50%) of the panelists stated that the NSPPP leader should report directly to a Cabinet-level leader. Although some panelist believed the NSPPP should be at the Presidential-level, the historical precedent of ineffective Presidential “czars” compelled the majority of the panelists to recommend the Cabinet-level authority.

Questions 11 through 20 focused on bringing fidelity to Round 1 answers associated with identifying and prioritizing key performance indicators. Questions 11 through 13 ask the panelists for their insight and experience regarding trust and the NSPPP leader. There was consensus (90%) that trust in the NSPPP leader was important to the success of the NSPPP. The panelists were asked if the individual must be trusted before assuming the NSPPP leadership position. There was no consensus in the answers; however, there was a slight time component in the answers. For a crisis response NSPPP, the panelists stated there may be value in selecting an individual with a track record of success. However, in a long-term NSPPP, the individual’s prior

history was not as important to the success of the NSPPP. Regardless of whether a crisis response or long-term response, the majority of the panelists stated that regardless if the person is a known or unknown individual, the NSPPP leader's action after taking control of the NSPPP will create, enhance, or destroy the environment of trust.

Trust in the leader is critical. An organizational climate of trust is required for effective information sharing or transparency. As identified in the literature review, a trust in a leader is a result of three overarching qualities: integrity, competence, and benevolence. Questions 14 (Appendix S) asked the panelists to determine the importance of these three qualities in light of an immediate crisis response. As shown in Table 13, in a crisis situation, competence is the most important trust-building quality in a leader. Of interest is the low importance of leadership benevolence in a NSPPP leader.

Table 13

Leadership Trust Traits in a Crisis Response NSPPP

Trait	Median
Integrity	30.0
Competence	50.0
Benevolence	15.0

Question 15 (Appendix T) asked the panelists to determine the importance of these qualities in light of a long-term preparation response (Table 14). As indicated by the results, there was a clear consensus (95%) that a NSPPP leader's competence was the most important

trait in either scenario. However, the longer the focus of the NSPPP, the more benevolence becomes an issue.

Table 14

Leadership Trust Traits in a Long-Term Response NSPPP

Trait	Median
Integrity	30.0
Competence	50.0
Benevolence	22.5

In Round 1, the panelists provided optimum qualities of a NSPPP leader. The qualities confirmed the most appropriate leadership style for a NSPPP leader is servant leader. Questions 16 and 17 focused on determining if there is a time component to the servant leadership style. Question 16 (Appendix U) asked the panelists to determine the importance of the leadership style qualities identified in Round 1 as they pertain to a crisis response (Table 15). In a crisis response, the panelists had consensus (80%) that the most important leadership style quality was decisiveness. Of interest, the results of this question correspond to the leadership trust traits results in Question 14. Competence qualities (decisiveness and good communicator) are most important, followed by integrity qualities (moral courage), with benevolence qualities (passionate, visionary, and selfless) a distant third.

Table 15

Leadership Style Qualities in a Crisis Response NSPPP

Leadership Style Quality	Median
Passionate & Charismatic	5.0
Visionary	7.5
Good communicator	27.0
Moral courage	18.0
Selfless	5.0
Decisive	37.5

Question 17 (Appendix V) focused on identifying the best NSPPP leadership style qualities in a long-term preparation scenario (Table 16). In a long-term preparation scenario, there was no consensus among the panelists. The leadership style quality of good communicator received the majority (60%) of responses.

Table 16

Leadership Style Qualities in a Long-term Preparation Response NSPPP

Leadership Style Quality	Median
Passionate & Charismatic	10.0
Visionary	20.0
Good communicator	25.0
Moral courage	11.5
Selfless	5.0
Decisive	20.0

Question 18 (Appendix W) asked the panelists to determine the best source for a NSPPP leader. There was consensus (80%) the NSPPP leader should come from the public sector. However, the majority of panelists stated the NSPPP leader needed to have private sector experience to better understand the private sector world-view.

For Question 19 (Appendix X), there was consensus (90%) that the best approach to foster effective information sharing and transparency was to grant every NSPPP member a security clearance. However, barriers to effective information sharing and transparency do not exist solely in the public sector. There was consensus (100%) that there are legal, organizational, and cultural barriers to effective information sharing and transparency in the private sector (Question 20).

Question 21 was an open-ended question designed to determine the panelists' beliefs that the bureaucratic, cultural, and legal barriers could be overcome to create an effective NSPPP.

The panelists were optimistic and their narrative answers were insightful (Appendix Y). There was consensus (90%) that creating an effective NSPPP is possible in spite of existing and established bureaucratic, cultural, and legal barriers. However, fifty percent of the panelists believed that it will take a minimum of a new government administration or another September 11-type attack to act as a change catalyst.

Round 3. Round 2 identified consensus key result and performance indicators and confirmed the need to account for a time component in a national security crisis response. The purpose of Round 3 was to prioritize the key result and performance indicators and determine if a time component to a national security response affects this prioritization.

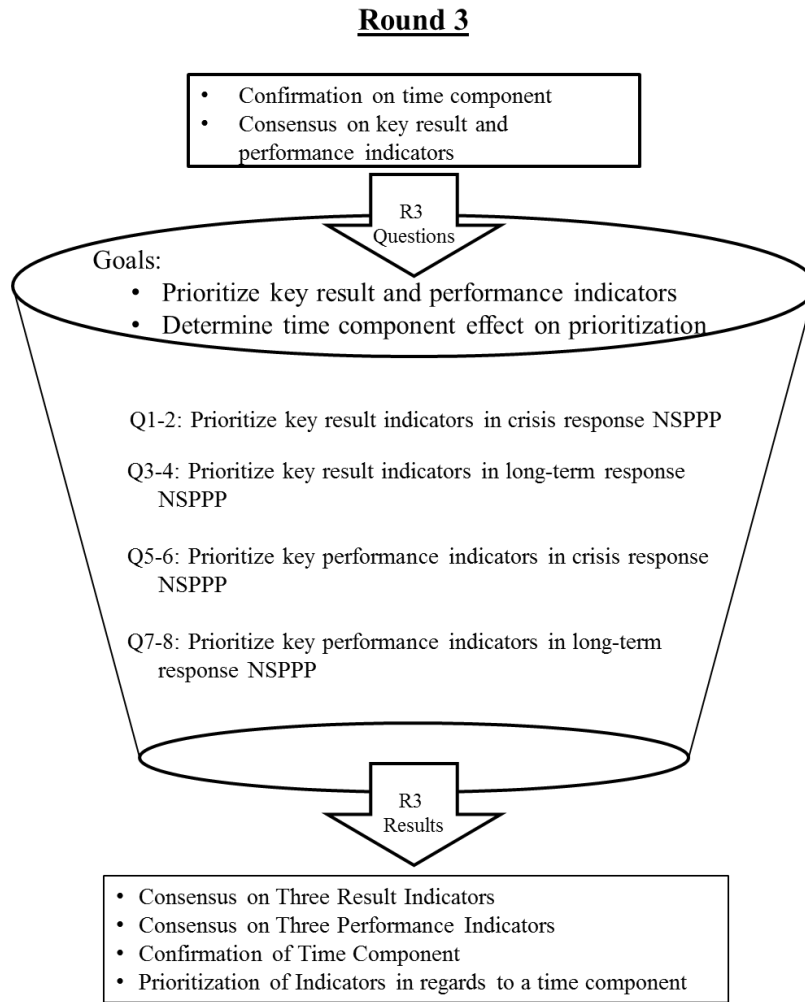


Figure 4: Round 3 Process

The Round 3 survey was released on December 15, 2015 via the SurveyMonkey distribution tool and university email account. There were a total of eight questions that required rank-order and narrative answers (Appendix Z). The questions focused on prioritizing the key result and performance indicators identified in Round 2. The questions also presented scenarios that had both a crisis response and long-term response time component. Eleven of the eighteen panelists completed the survey. The following are the results of the Round 3 survey.

Questions 1 and 2 focused on prioritizing key result indicators for a NSPPP created to address an immediate national security crisis. Question 1 (Appendix AA) asked the panelists to determine the importance of an indicator in regards to a crisis response scenario. Table 17 presents the results of Question 1. Both authority to lead and goals and objectives were the top result indicators. Both indicators also had the highest IQR scores (25.0), which indicate these indicators had polarized responses. This polarization was seen in the data. Either the panelist believed goals and objectives are more critical or they believed that authorities are more critical. The distinguishing factor was the mean. Those that believed authorities to be more important applied a higher percentage to their decision than those that held to a goals and objects priority.

Table 17

Key Result Indicators for a Crisis NSPPP

Key Result Indicator	Median	IQR
The NSPPP must have clear goals and objectives	20.00	25.0
Government policies, statutes, and regulations and private sector privacy and legal concerns acting as barriers to an effective NSPPP must be addressed	10.00	15.0
The negative effects of the United States bureaucratic culture must be addressed	5.00	5.0
The NSPPP must have adequate funding	15.00	15.0
The NSPPP leader or oversight organization must have the authorities necessary to act rapidly and decisively	40.00	25.0

Question 2 asked the panelists for the logic attached to their prioritization. The NSPPP panelists re-affirmed in the narrative (Appendix BB) that the two most critical key result indicators was a NSPPP leader with the authorities to rapidly move through bureaucracies,

culture, and other barriers; and the NSPPP having clear goals and objectives. However, of the two indicators, authorities were the most prevalent node in the narrative.

Questions 3 and 4 focused on prioritizing key result indicators identified in Questions 1 and 2; however, the scenario was a long-term national security effort. Question 3 (Appendix CC) asked the panelists to determine the importance of an indicator in regards to a long-term response. Table 18 presents the results of Question 3. The time component was evident in both the lack of polarization in the IQR scores and the movement from a focus of authorities to a joint focus of authorities and goals and objectives.

Table 18

Key Result Indicators for a Long-Term NSPPP

Key Result Indicator	Median	IQR
The NSPPP must have clear goals and objectives	25.00	10.0
Government policies, statutes, and regulations and private sector privacy and legal concerns acting as barriers to an effective NSPPP must be addressed	20.00	10.0
The negative effects of the United States bureaucratic culture must be addressed	10.00	10.0
The NSPPP must have adequate funding	20.00	5.0
The NSPPP leader or oversight organization must have the authorities necessary to act rapidly and decisively	25.00	10.0

Question 4 asked the panelists for the logic attached to their prioritization. The NSPPP panelists stated in the narrative (Appendix DD) that in a long-term focus, both authorities and goals and objectives need to be addressed. The panelists also stated that the NSPPP leader is the individual that must address and negotiate these issues.

Questions 5 and 6 focused on prioritizing key performance indicators for a NSPPP created to address an immediate national security crisis. Question 5 (Appendix EE) asked the panelists to determine the importance of an indicator in regards to a crisis response scenario. Table 19 presents the results of Question 5. There was a clear consensus (100%) that leadership is the most important key performance indicator in a crisis response scenario. The panelists stated in their narrative (Appendix FF) that all key performance indicators are important, but without strong leadership the NSPPP will fail.

Table 19

Key Performance Indicators for a Crisis NSPPP

Key Performance Indicator	Median	IQR
The NSPPP must have strong and competent leadership	25.00	15.0
There must be open information sharing and transparency	15.00	10.0
The NSPPP members must have unity of purpose	15.00	5.0
The NSPPP members must have a sense of urgency	20.00	10.0
There must be open and unrestricted communication between NSPPP partners	15.00	15.0
Each NSPPP partner must understand their value to the overarching effort	10.00	5.0

Questions 7 and 8 focused on prioritizing key performance indicators for a NSPPP created to address a long-term national security effort. Question 7 (Appendix GG) asked the panelists to determine the importance of an indicator in regards to a long-term response. Table 20 presents the results of Question 7. There was continued consensus (90.9%) that leadership was the key indicator; however, the time component was also evident in the key performance

indicators. As the time increased in the response, leadership prioritization decreased and value and info sharing increased.

Table 20

Key Performance Indicators for a Long-Term NSPPP

Key Performance Indicator	Median	IQR
The NSPPP must have strong and competent leadership	25.00	10.0
There must be open information sharing and transparency	20.00	10.0
The NSPPP members must have unity of purpose	20.00	5.0
The NSPPP members must have a sense of urgency	10.00	5.0
There must be open and unrestricted communication between NSPPP partners	10.00	5.0
Each NSPPP partner must understand their value to the overarching effort	15.00	10.0

Question 8 (Appendix HH) asked the panelists to describe the logic behind their prioritizations. The panelists clearly stated that leadership is the critical indicator to the success of an NSPPP, regardless of the time component. However, the panelists also stated the other indicators become more important as time increases. One panelist stated that some of the indicators (e.g., information sharing and clear communication) may be linked. These possible linkages are discussed in chapter 5.

Results Regarding Reliability

Interrater reliability. Because the Delphi study relies on the judgment of experts, the reliability of these judgments needs to be assessed (Drost, 2011). Beginning in Round 2, the panelists rated the results of the previous round narrative answers. This provided data that SPSS

could calculate an intraclass correlation coefficient. The calculated coefficient of .863 (Appendix II) showed that there was high interrater reliability in the panel.

Internal consistency. Internal consistency measures the reliability of the instrument to consistently measure an item or key indicator as part of the test (Drost, 2011). Cronbach's alpha is a common measurement of the internal consistency of a questionnaire or survey (Tavakol & Dennick, 2011). In Round 2, Questions 1, 3, 7, 8, and 19 were Likert scale questions that allowed the calculation of a Cronbach's alpha (Appendix JJ). For this study, Cronbach's alpha was .886, which indicated acceptable internal consistency.

Summary

Chapter 4 presented the analysis of data collected from the three modified Delphi rounds. A pilot test panel determined that the Round 1 questions were appropriate for Delphi panelists at the senior executive level. Because of the time constraints on the part of the Delphi panelists and the inherent appropriateness and alignment of the Round 2 questions, a pilot test panel was not convened prior to Round 2.

Eighteen senior level executives offered their expert opinions and insights over a three round survey, focusing on their experience at either leading or taking part in NSPPPs. SurveyMonkey (the survey instrument) was reliable in that it successfully collected the survey answers while protecting the anonymity of the panelists. As part of the survey procedure, the Delphi panelists confirmed the data analysis of the previous round and used those findings to further build an answer to this study's research question.

Round 1 focused on identifying key indicators of both an effective and unsuccessful NSPPP. Many qualities and characterizations of indicators of both failed and effective NSPPPs

emerged from the survey responses via the NVivo 10 analysis tool. However, at the end of the Round 1 data analysis, consensus identified six key indicators that characterize either an effective or failed NSPPP: clear goals and objectives (result), value to all partners (performance), clear communications (performance), leadership (performance), authority to overcome barriers and bureaucracies (result), and funding (result). The panelists also alluded to a possible time component to national security crisis responses.

Round 2 focused on further characterizing the six key result and performance indicators identified in Round 1 and validated the existence of a time component. Of interest, although the key indicator of funding obtained consensus in Round 1, it did not receive consensus in Round 2. However, the panelists' narrative for Round 2 strongly advocated that funding is a key indicator of NSPPP success or failure. Although goals and objectives were a strong consensus, characterizing the static or dynamic nature of the goals and objectives elicited the strongest dialogue of the survey. The strongest consensus items of Round 2 are that the success or failure of the NSPPP hinges upon strong leadership that possesses the authorities to succeed against the established bureaucracies.

Round 3 focused on identifying the priority order of the key result and performance indicators. Round 3 questions used time-based scenarios to assist the panelists in prioritizing the key indicators. Regarding a NSPPP key result indicators, there was consensus that authorities was the number one priority indicator for a crisis response scenario. However, goals and objectives was the number 1 priority for a long-term response NSPPP. For key performance indicators, leadership was the consensus number one priority for both crisis response and long-term response NSPPPs.

The objective of this modified Delphi study was to identify and prioritize key indicators of an effective NSPPP. The result of the three Delphi rounds accomplished this objective. Chapter 5 of this study will further expand on the results identified in Chapter 4. Chapter 5 also presents the conclusions of the study, implications of the study as they pertain to leadership, a recommended NSPPP framework for current and future senior public sector and private sector leaders, evaluation of the survey's validity and reliability, and recommendations for future studies.

Chapter 5

Conclusions and Recommendations

The purpose of this modified Delphi study was the development of an effective NSPPP framework via the identification and prioritization of key result and performance indicators. The general problem is that most NSPPPs, created to address strategic acts of terrorism, large-scale natural disasters, or the preparation to address future national security issues are not effective when graded against criteria contained in the NRF and the Stafford Act (Clinton, 2011; Donnellan, 2010; Lewis, 2011). The specific problem is there is no scholarly-derived framework necessary to create an effective NSPPP (Fry-Pierce & Lenze Jr., 2011). Critical to the creation of this framework is the identification of key result and performance indicators (Shabaninejad et al., 2014). An exhaustive literature review produced no previous research that identified and prioritized the key indicators of an effective NSPPP.

A modified Delphi design was used to elicit input and insight from a population of experts who are senior leaders in the private sector or public sector, have led or are a member of a NSPPP, or a renowned academic possessing a doctorate degree and published on a NSPPP-related topic. From this population, 18 senior leaders comprised the Delphi panel. Chapter 4 presented the results of the three rounds of survey questions. Over the three rounds, there emerged consensus on the key indicators associated with an effective NSPPP and agreement on the priority order of the indicators.

Chapter 5 presents the findings of this Delphi study. The findings are a cumulative synthesis of each round's results and narrative explanations from the panelists. When able, this synthesis will include comparisons with previous research identified in the literature review and

existing theories related to leadership and organizations. Ultimately, the findings answer this study's research question: What key indicator framework best characterizes an effective NSPPP? Chapter 5 is composed of six sections: findings, implications to leadership, effective NSPPP framework, validity and reliability, recommendations for further study, and summary.

Findings

Chapter 4 presented a comprehensive look at the Delphi panelists' expertise, lessons learned, insight regarding effective and ineffective NSPPPs, leadership, and internal and external organizational issues. The Delphi process began with a pilot test panel evaluating the proposed Round 1 questions to determine applicability to leaders of the caliber on the Delphi panel. Round 1 began with the panelists identifying overarching characteristics of both effective and ineffective NSPPPs. Round 1 narrative also identified the possibility of a time component in a national security crisis response. Round 2 answers confirmed this time component. As discussed in Chapter 4, the identification of a surprise result is not an uncommon artifact of a qualitative process designed to follow the data where ever it leads. Rounds 2 and 3 further narrowed the characteristics identified in Round 1 until there was consensus on the key performance and result indicators and agreement on their priority order. The following discussions present the findings per round, culminating with proposed frameworks of an effective NSPPP.

Round 1 findings. The findings for the first round characterized an effective NSPPP and used the characterization terms as a basis for identifying possible key performance and result indicators. The Delphi panelists characterized an effective NSPPP as having (a) clear goals and objectives, (b) value and benefits to all partners, (c) clear communications, (d) strong leadership,

(e) clear authority to succeed, and (f) adequate funding and resources. Additional findings for each potential key indicator are as follows:

According to the panelists, for a NSPPP to be effective, there must be clear goals and objectives. The panelists described clarity as something that both the private sector and public sector can understand and align their mission and capabilities against. The goals and objectives provide focus to both the private sector and public sector members. The goals and objectives must be achievable and should have a mechanism to measure the NSPPP's progress and effectiveness.

The impact of a NSPPP lifespan expectancy first emerged when the panelists discussed the static or dynamic nature of a NSPPP's goals and objectives. Of all topics, this elicited the strongest opinions of both Rounds 1 and 2. Panelists were either unwavering that a NSPPP's goals and objectives should never change, while other panelists were adamant that the goals and objectives must change. Although peer reviewed literature discusses the importance of clear goals and objectives (Busch & Givens, 2012), no research discusses the polarizing effect of the static or dynamic nature of goals and objectives. A secondary NVivo 10 analysis on the panelists' narrative answers related to goals and objectives identified the word "evolve" as a common descriptor of the nature of a NSPPP's goals and objectives. Using the descriptor as a filter, the researcher discovered a link between panelists' NSPPP experience and their views regarding the static or dynamic nature of a NSPPP's goals and objectives. For those panelists who adamantly stated that goals and objectives should never change, 100% were members of NSPPPs created to address a crisis response and had a definitive NSPPP term length. 100% of the panelists that described a NSPPP's goals and objectives as evolving were leaders or members

of NSPPPs that either had a multi-year end-date or no end-date. This initial finding of a time component to an effective NSPPP's goals and objectives represents new knowledge and generated additional questions in Round 2. The correlation between a panelist's experience and views regarding the dynamic nature of goals and objectives is also new knowledge and critical to senior United States Government leaders' choice to lead a NSPPP.

Value and benefits to all partners is a characteristic identified by the private sector panelists. The larger the corporation, the more adamant the call for value equality. Three panelists were senior executives in Fortune 100 corporations. They provided unique insight regarding ineffective NSPPPs. These panelists identified two aspects of value: social and market. With the social aspect of value, the private sector partners stated that the public sector leaders de-value their contribution by compartmentalizing information, using the private sector entity as a dedicated funding source, and accomplishing strategic planning in a way that prohibits their contributions of expertise. All the panelists stated it is the role of the NSPPP leader to create and foster the social aspect of value. This role aligns with Latham's (2013) characteristics of a servant leader.

Second, regarding market value, the private sector panelists wanted information to be a two-way flow versus a one-way flow from the private sector to the public sector. All panelists agreed that certain information needs safeguards, be it by classification caveats or proprietary legal safeguards. However, by making information flows transparent, the private sector can realize value in a corporate sense. Whereas, it is the role of the NSPPP leader to ensure an environment of social value, it is the function of the authorities endowed to the NSPPP to empower the NSPPP leader to create an information transparent environment.

Of interest, none of panelists with only public sector expertise identified the indicator of value and benefit to all partners as necessary for an effective NSPPP. This disparity between the private sector and public sector's value world-view reinforces the Chapter 4 result that the NSPPP leader needs to reside in the public sector, but should have private sector experience. Peer reviewed research did not identify value as a requirement for an effective NSPPP. When peer reviewed research mentioned the concept of value, they identified it as a product of a trusted relationship environment (Givens & Busch, 2013). However, the private sector panelists identified value as a trust reinforcement mechanism. In regards to a long-term NSPPP, some panelists stated the identification of value could be a precursor for entering into a trusted relationship.

As stated in Chapter 4, the panelists had consensus that clear communications characterize an effective NSPPP. There was also consensus that information transparency is synonymous with clear communications. The panelists agreed there are numerous barriers to information transparency to include organizational culture, bureaucracies, lack of trust in the partnership, and legal issues. In their narrative, the panelists identified two catalysts for overcoming the barriers: authorities and leadership. Authorities, to include a Presidential Executive Order, Congressional statute, corporate legal determination, etc. empower the leaders from both sectors to share information. The panelists also stated common goals and objectives act as incentives to create pathways around or through established barriers.

The second catalyst for overcoming barriers to information transparency is the NSPPP leader. The panelists cited examples of a NSPPP having the authorities necessary for information sharing; however, the NSPPP leader's lack of private sector experience created a

hesitancy to both share information and include the private sector in critical planning. This created an atmosphere of distrust and the NSPPP quickly failed. The proper mechanism to address barriers to clear and transparent communications was addressed in Round 2 questions.

There was 100% consensus that leadership is the most critical determiner of a NSPPP success or failure. Rounds 2 and 3 found that other indicators are as critical as leadership; however, leadership is the most visible determiner. The panelists gave many descriptors of an effective NSPPP leader, which aligned with Latham's (2013) qualities of a servant leader.

One interesting finding emerged regarding NSPPP leadership. Panelists with crisis NSPPP experience spoke of a singular, decisive leader. This finding aligns with current research by Jaques (2012) of a strategic leader in an organization experiencing a crisis. However, panelists associated with long-term NSPPPs advocated a joint public sector-private sector leadership structure that focused more on collaboration versus decision-making. This finding aligns with the institutional organization theory (Wang et al., 2014). Peer reviewed research does not identify a requirement for a different leadership structure in conjunction with a NSPPP lifespan. Additional questions addressed this potential finding in Round 2. This finding represents new knowledge in the field of effective NSPPPs.

As much as leadership was a consensus determiner of an effective NSPPP, bureaucracy was the consensus barrier to an effective NSPPP. Peer reviewed research regarding NSPPPs confirm that bureaucracy is a critical barrier to effectiveness (Van Gestel et al., 2012). The panelists compared the United States Government bureaucracy to a tightly constrained monopoly where the NSPPP leader has to operate either legally or illegally to effectively engage with a partner. Panelists stated the NSPPP leader fights two battles against bureaucracies. First, the

leader battles to overcome the bureaucratic barriers. Next, the leader battles the historical precedent of a government entity to lose focus over the lifespan of the NSPPP and eventually become part of the bureaucracy. The critical impact of these internal and external barriers validated this study's use of the institutional organizational construct.

However, panelists that were members of a crisis NSPPP, gave compelling narrative that the United States Government was a critical enabler and the impact of numerous barriers, to include bureaucracy, was minimal. Their narrative inferred there is a direct correlation between the critical nature of a NSPPP, immediacy of the crisis event, and the desire on the part of the intrinsic authorities to navigate around existing barriers. Additional questions in Round 2 examined if there is a time component associated with authorities and addressing barriers to an effective NSPPP. If there is a time component associated with authorities inherent in a NSPPP, then this would represent new knowledge regarding NSPPPs. Round 2 questions also inquired as to the source of a NSPPP leader's authority to address barriers to effectiveness.

As stated in Chapter 4, adequate funding was a consensus item. The panelists stated that funding will always be limited; however, the closer in time the NSPPP is to a crisis, the more money is available. One interesting finding was the amount of funding elicited from the private sector, to include sundry items like coffee and snacks. Many of the panelists stated that the private sector subsidized the NSPPP. Questions in Round 2 further addressed the subject of adequate funding.

Round 2 findings. The primary findings for Round 2 were the identification of key performance and result indicators of an effective NSPPP and validated a time component to national security responses. When combined with the findings of Round 1, the panelist had

consensus on six key indicators: goals and objective (result), authorities (result), funding (result), leadership (performance), value to all partners (performance), and information transparency (performance). Another critical finding from Round 2 is that there are nuances in the key indicators in relation to the time component of the national security event (crisis response versus long-term preparation response). Additional findings for Round 2 are as follows:

Regarding goals and objectives, there were two critical findings. First, the panelists had consensus the goals and objectives contained in the Stafford Act were adequate for both the public sector and private sector in response to a national security event or an imminent national security event. In regards to a long-term national security response or preparation, the Stafford Act is not adequate. Prior to the launch of a long-term NSPPP, private sector and public sector leaders need to agree on the overarching goals and objects. The panelists agreed that these goals and objectives needed to address the coordination framework, the problem solution, mitigation of loss and damage, feedback mechanism that ensures continued alignment to the goals and objectives, leadership structure, and resource responsibility.

The second finding concerned the changeability of both the goals and objectives. Round 1 narrative answers found there was disagreement between crisis response NSPPP members and long-term NSPPP members. Round 2 questions presented the panelists with four graduated options between a non-change and must-change viewpoint. Although the majority of panelists agreed the goals and objectives contain some change potential, the crisis response NSPPP members had consensus that the strategic goals must never change. This differs from the long-term NSPPP members who are just as adamant that strategic goals may change and objects will change. In regards to the long-term NSPPP changes, the panelists stated there must be

transparency to both sectors when either the goals or objectives change. Overall, the effect of time on a NSPPP represents new knowledge. This study started with the goal of developing a singular framework that could apply to any national security scenario. However, as a result of these findings, the stated goal of this study must change to reflect two frameworks versus one. The need for two distinct frameworks is new knowledge and provides senior United States Government leaders with a better opportunity to create an effective NSPPP.

As stated in Chapter 4, there is consensus that an effective NSPPP is one that has the proper authority to succeed. However, there was a difference of opinion as to the source of the required authorities. Some of the panelists stated the NSPPP needs to reside under the President of the United States. The reason for this placement related to empowering the NSPPP with the authority to succeed. However, the majority of panelists stated the NSPPP should directly report to a Cabinet-level leader. Other panelists stated the NSPPP should reside in a quasi-governmental organization akin to the Federal Reserve; however, that would require congressional statute.

After further literature review and analysis of Round 2 narrative answers, this study finds the best place for the NSPPP is directly reporting to a Cabinet-level leader. The primary reason for this placement is funding. Findings related to authorities are linked to the key indicator of funding. Directly reporting to the President provides the NSPPP with necessary authorities; however, the private sector will need to provide the majority of funding. The Executive Office of the President has a funding line item titled *Unanticipated Needs*. For fiscal years 2013 through 2015, this line item had a funding ceiling of \$1 million (Executive Office of the President, 2015). This amount is not enough funding to launch either a crisis response or long-

term NSPPP. A Cabinet-level leader has the capabilities to provide initial NSPPP funding, advocate for, defend, and receive follow-on Congressional funding plus-ups.

For either a crisis response or long-term NSPPP, the President of the United States designates a Cabinet-level leader as primary oversight. This provides both the Cabinet-level leader and NSPPP with necessary authorities to succeed. This structure also provides the NSPPP with necessary initial operating funds. Congress will provide additional funding and authorities; however, both will take time.

There were four findings related to NSPPP leadership. First finding established the need for a NSPPP that exists in a mutually trusted environment. It is important for the NSPPP leader to trust the NSPPP members, but more importantly, the NSPPP members need to trust the NSPPP leader. Trust is difficult to create and quick to dissolve (Edelenbos & Klijn, 2007).

Second finding found that the NSPPP leader does not need an extensive history of successful leadership to be trusted by the NSPPP membership. A majority of panelists stated that a known trusted leader is optimum for a crisis response NSPPP; however, the leader's immediate leadership actions are what create or destroy a trusted partnership relationship. Research conducted by Raza et al. (2011) concluded that an entity's trust maturity, distance, and density can be measured and used to predict the future trust of a partnership. However, findings from this study indicate that a NSPPP treats trust differently than a normal horizontal relationship. According to the panelists, trust between the NSPPP leader and partner is indelibly linked to a NSPPP leader's current and future decisions versus a historical track-record of correct decision making.

The third leadership finding demonstrated that a NSPPP operates differently than previously studied partnerships. As stated in the Chapter 2 literature review, numerous researchers found trust is composed of three qualities: benevolence, integrity, and competence. According to Getha-Taylor (2012), benevolence is the most important quality in a horizontal partnership. Krot and Lewicka (2012) confirm Getha-Taylor's research finding regarding benevolence. However, Krot and Lewicka propose that competence may eclipse both benevolence and integrity in new partnerships (p. 231). This Delphi study confirmed Krot and Lewicka's hypothesis. For both crisis response and long-term NSPPPs, competence is the most important component of trust. In a long-term NSPPP, benevolence and integrity gain more prominence, but competence is still preeminent. This finding confirms the literature review discovery that the organizational culture of short tenures for NSPPP leaders could be harmful to the effectiveness of long-term NSPPPs. Once the NSPPP leader departs, trust does not transfer to the new leader.

The fourth leadership finding confirms the servant leadership style as most desirable for a NSPPP. The primary leadership qualities of decisiveness, strong communicator, moral courage, visionary, passionate, and selfless are key qualities of a servant leader (Latham, 2013). However, the importance and priority of each of these qualities change in relation to the NSPPP lifespan. This finding lends credence to the concept that the leader of an effective crisis response NSPPP will not necessarily experience the same degree of effectiveness if he or she leads a long-term NSPPP. In a crisis response NSPPP, the leader needs to be strong in the decisiveness and moral courage qualities at the expense of the passionate and visionary qualities. The long-term NSPPP leader needs to be more collaborative in nature. This tracks with the Round 2 finding that

a long-term NSPPP is best jointly led by a public sector and private sector leader. These findings regarding NSPPP leadership style, leadership qualities, and the effect of time on these qualities represents new knowledge.

The value to all partners finding is linked to both leadership and information transparency indicators. Regarding leadership, this study found that a NSPPP leader should be part of the public sector but must have prior private sector experience. This experience viewpoint provides the NSPPP leader with unique private sector understanding and ensures that the private sector receives value. Also, if the NSPPP operates with information transparency, the private sector partners will receive value realized from unique government information networks (Givens & Busch, 2013).

Findings related to information transparency are linked to findings associated with leadership and authorities. Many of the barriers to effective information transparency exist in both the private sector and public sector. The President of the United States has the authority to address enough of the barriers to ensure the NSPPP can be effective in the short-term. However, many of the barriers must be resolved via legislative statute. The panelists identified organizational cultures in both sectors as barriers to information transparency. However, the panelists did state that a NSPPP leader from the public sector, but possessing private sector experience, would be able to navigate around many of the barriers.

Round 3 findings. Round 1 and Round 2 findings identified key performance and result indicators of an effective NSPPP. Round 3 provided the Delphi panelists with both crisis response and long-term scenarios. The purpose of Round 3 was to prioritize both the key performance and result indicators. For both scenarios, authority was the number one

performance indicator, followed by clear goals and objectives, and funding (last). For both scenarios, strong leadership was the number one result indicator, followed by information transparency and value to all partners (last). When looking at all the key indicators in totality, authority is the number one priority for a crisis response NSPPP. Narrative from the panelists inferred that the sense of urgency of a national security crisis or major disaster puts more importance on rapidly circumventing bureaucracies and barriers. However, strong leadership is the number one priority for a long-term NSPPP. Once again, narrative from the panelists inferred the collaborative nature of the partnership requires a leader that can not only navigate around established barriers but also ensure all partners receive value.

Implications to Leadership

There are two critical implications to senior public sector and private sector leaders. First, this study identified and prioritized the key indicators of an effective NSPPP. Before this study, these indicators were unknown. The frameworks resulting from this study's research identify and characterize each key indicator and provide the leaders with the knowledge necessary to create effective NSPPPs.

The second implications for leadership arise from this study's finding that response time affects the framework of an effective NSPPP. The majority of Delphi panelists who were members or leaders of crisis response NSPPPs stated that although the NSPPPs were ineffective, there was an improvement from September of 2001. Unfortunately, the majority of Delphi panelists who were members or leaders of long-term NSPPPs not only stated that the NSPPPs were ineffective, but also stated that there was no improvement. With this new knowledge regarding the effect of the national security response time, senior public sector and private sector

leaders may understand that frameworks for crisis response NSPPPs and long-term NSPPPs are not interchangeable. One framework does not apply to every NSPPP scenario. Applying the wrong framework to the national security event will lead to an ineffective NSPPP. However, applying the correct framework to the national security event will lead to an effective NSPPP.

Effective NSPPP Frameworks

The stated purpose of this modified Delphi study was the development of a framework that characterizes an effective NSPPP. The following two frameworks incorporate the results and findings from this study. The frameworks also differentiate between NSPPPs created to address crises and disasters from long-term preparatory NSPPPs or resilience efforts. These frameworks represent new knowledge in the field of effective NSPPPs

Crisis response NSPPP framework. The following crisis response NSPPP framework differs from the long-term response primarily in the areas of leadership qualities and goals and objectives. According to previously discussed findings, having proper authorities is the number one priority in a crisis national security event. The President of the United States is the primary catalyst to create a crisis response NSPPP and provide the NSPPP with its initial authorities.

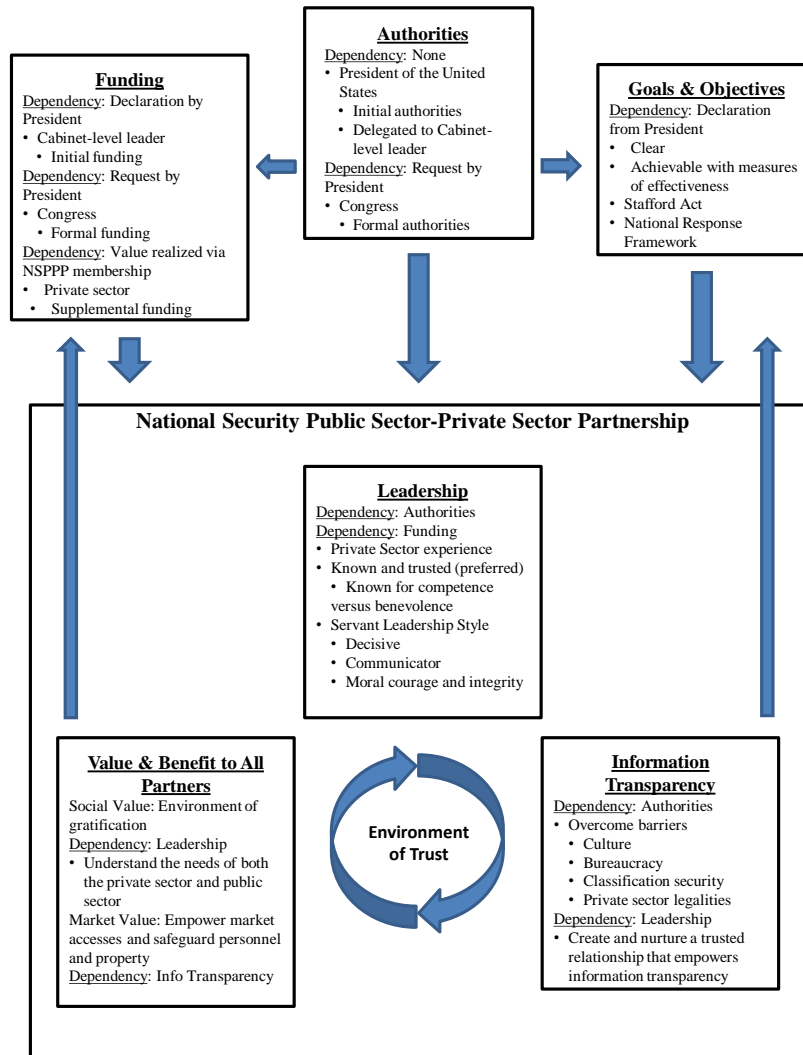


Figure 5: Crisis Response NSPPP Framework

Long-term response NSPPP framework. The difference between crisis response and long-term response NSPPPs is primarily in the areas of leadership qualities and goals and objectives. According to previously discussed findings, although having proper authorities is critical to the NSPPP’s effectiveness, leadership is the number one priority. The leader or leaders collaborate to create clear and achievable goals and objectives that include a coordination

framework, leadership structure, and accounts for information transparency and loss mitigation.

The President of the United States and Congress are the catalysts to ensure the proper leaders are selected and proper authorities are granted.

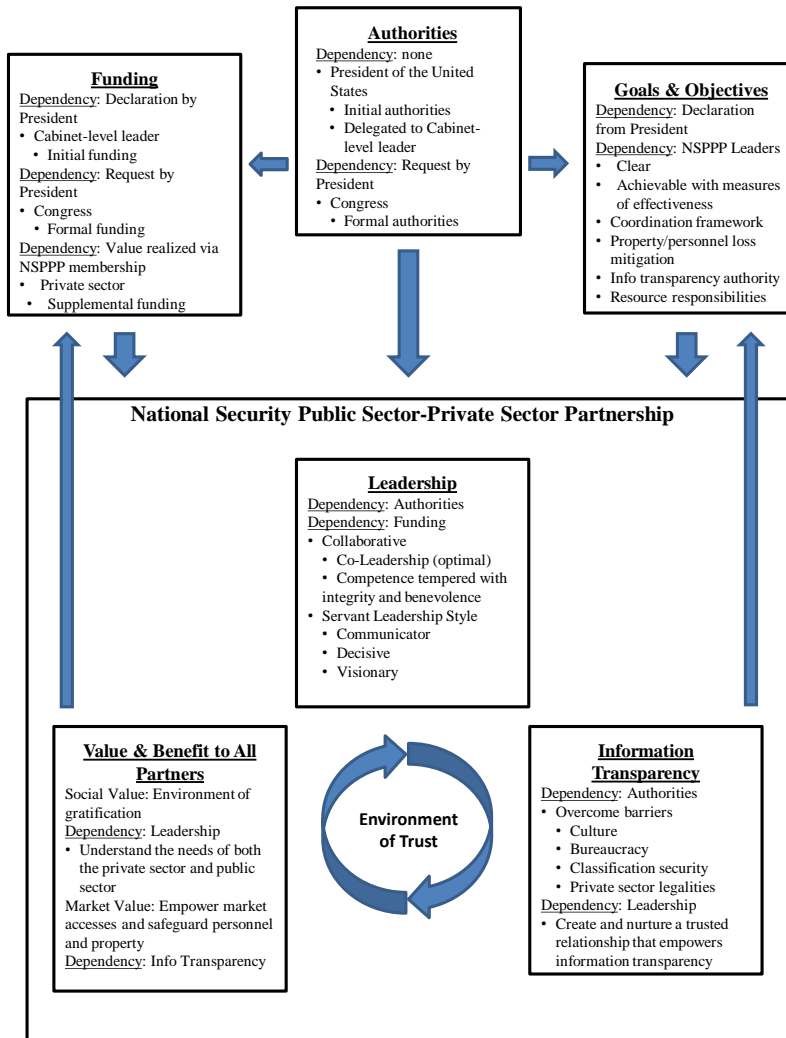


Figure 6: Long-term NSPPP Framework

Validity and Reliability of the Study

Validity is the certification that the research instrument will accomplish what it is intended to accomplish (Drost, 2011). Reliability is the consistency of the research instrument to come up with the same result each time, assuming the object being measured does not change (Drost, 2011). The following conclusions, statistical computations, and prior peer-reviewed research confirm the validity and reliability of this study, the tools used, and the study findings.

Validity. One of the characteristics of a Delphi method is its capability to collect and analyze both qualitative and quantitative data (Skulmoski et al., 2007). Although this study used a qualitative approach, the multiple choice, ranking, and Likert survey questions received statistical analysis. For those findings where both qualitative and quantitative analysis can be performed, triangulation was an applicable validation process. Triangulation is the cross-checking and corroboration of study-related data (Caruth, 2013). Triangulation uses two research methods to mitigate the weaknesses of each individual method and capitalize on the strengths of each method (Abowitz & Toole, 2010). This study used triangulation extensively. In the process of identifying and prioritizing key indicators, questions asked for both numerical and narrative answers. Each answer was used to confirm, enhance, or disprove a key indicator. For example, as stated in Chapter 4, a Round 2 quantitative question identified six key performance indicators. However, an additional qualitative question confirmed three indicators, but disproved the other three as being consequences of the three primary indicators. Triangulation increased the validity of this research study and aided in the overall understanding of the research findings (Bekhet & Zauszniewski, 2012).

Content validity. In a Delphi study, content validity is directly tied to the expertise of the panel (Libby et al., 2013). As previously noted, panelists possessed between 10 and 38 years of senior leadership, led more than 20 NSPPPs, sat on Presidential-level commissions, and reside on Fortune 500 Boards of Directors. This distinguished panel reached consensus on the identification and prioritization of both the key performance and result indicators. The caliber of the Delphi panelists and resultant consensus findings ensured that content validity was achieved (Glassel et al., 2011).

Internal validity. Internal validity addresses the validity of the research performed in the study (Jimenez-Buedo, 2011). Primary threats to the internal validity of a Delphi study are selection of the panelists, unequal treatment of the panelists, and rivalry among the panelists (Drost, 2011). This Delphi study enabled the equal treatment and protected the anonymity of all the panelists; thereby, ensuring that internal validity requirements were satisfied (Hallowell & Gambatese, 2010).

External validity. External validity addresses the extent that the research findings are generalizable to other partnerships, whether they be regional, industry only, foreign partners, etc. (Jimenez-Buedo, 2011). Because a Delphi study relies on panels of experts of a specific expertise (e.g., present and former leaders of NSPPPs), research findings are generalizable only to the extent that the population remains consistent to the original research population (Tomasik, 2010). Because many of the Delphi panelists are leaders on multi-national corporations or have led multi-national partnerships, this study's findings may be generalizable to international public sector-private sector partnerships with a security or crisis response focus. However, further research is needed to determine if this potential application is valid or if the findings from this

research translates to public sector-private sector partnerships that are not at the national security or strategic level.

Reliability. The three measurement tools used in this research study have an established reliability record regarding use in critical peer-reviewed research. SurveyMonkey is a reliable tool designed to collect, analyze, and evaluate survey data (Massat et al., 2009). NVivo is a recognized and reliable qualitative analysis tool (Bergin, 2011). SPSS is the recognized and recommended statistical tool for doctoral level research. Likert scales are recognized and reliable quantitative data analysis tools (Edwards & Edmondson, 2011).

Interrater reliability. Because the Delphi study relies on the judgment of experts, the reliability of these judgments needs to be assessed (Drost, 2011). As described in Chapter 4, the calculated coefficient of .863 (Appendix II) showed that there was high interrater reliability in the panel. The lower limit of .739 (acceptable) and the upper limit of .942 (excellent) reinforce the high reliability of the panelists.

Internal consistency. Internal consistency measures the reliability of the instrument to consistently measure an item or key indicator as part of the test (Drost, 2011). As described in Chapter 4, the researcher used Cronbach's alpha to measure the internal consistency of the survey. For this study, Cronbach's alpha was .886, which indicated acceptable internal consistency.

Recommendations for Further Study

Four recommendations for further research arise from this study. First, the results of this study are generalizable to public sector-private sector partnerships created to address United States national security crises and issues. Although the literature review for this study focused

on the United States, the exhaustive nature of the review also covered on partnerships outside of the United States. The literature review identified no scholarly research addressing an international security public sector-private sector partnership. Further research is needed to determine if the findings from this study transfers to public sector-private sector partnerships created to address international security crises and issues. For example, this study found United States bureaucracies and organizational culture were barriers to an effective NSPPP. This study also found authorities to succeed and strong decisive leadership is critical to success. However, this study focused on a singular country, the United States. If the public sector-private sector partnership included numerous countries and corporations with headquarters in countries other than the United States, would the findings from this study apply? This researcher expects differing sources of authority and country cultural norms to be significant barriers to effectiveness and may require different organizational and leadership structures. Although future research could use historical case studies (e.g., Desert Storm Coalition, INTERPOL, etc.), there is probably more value to use a modified Delphi method. The Delphi panelists should be public sector-private sector leaders from different countries who either led or were members of an international security coalition.

Second, although the literature review for this study did identify scholarly research for public sector-private sector partnerships created to address local and regional security issues, the research did not result in a framework of an effective partnership. Further research is needed to determine if the findings from this study transfers to local and regional partnerships. Many of the authorities, legalities, and regulatory barriers to effectiveness reside at the federal level (e.g., Freedom of Information Act, Federal Advisory and Committee Act, etc.). Agreements at the

state and local level may not protect a private sector partner from federal litigation if injury occurs as a result of a local action. This researcher believes that private sector legal council will play a more critical part in enhancing the effectiveness of a public sector-private sector partnership created to address local or regional security crises and issues.

The third recommendation originates from this study's finding that a national security response time directly affects the framework of an effective NSPPP. This new information resulted in two frameworks, one for a crisis response NSPPP and one for a long-term NSPPP. The frameworks are not interchangeable. For example, even though the servant leadership style applies to both frameworks, the specific leadership qualities differ between the two frameworks. Qualities of the goals and objectives are the same between the two frameworks; however, creation of the goals and objectives occur differently.

Further research into the effects of time on a long-term NSPPP may be beneficial. The Delphi panelists stated the United States Government continually fails in trying to create an effective long-term NSPPP. As a long-term NSPPP's lifespan transcends numerous senior government leaders, the effect of time may increase or decrease the rate of goal and objectives evolution. The leadership style may also transition from a servant leader to another style. Authorities and bureaucracies may have a more profound impact. In researching this study, the researcher encountered numerous NSPPPs with a lifespan greater than 10 years. Applying the findings of this study to legacy NSPPPs may provide a framework with time increments.

The fourth recommendation is an application of this study's findings in future research. Many of the key indicators and their associated qualities have percentage and priority weights. Raza et al. (2011) created a predictive model using weights associated with components and

qualities of trust. Further research using the Raza et al. predictive model and this study's findings may present a means to predict the effectiveness of a NSPPP. This predictive capability would enable senior leaders to anticipate problems before they occur; thereby increasing the resilience of the United States.

Summary

This study resulted from the continued trend of the United States Government in creating ineffective public sector-private sector partnerships to address national security crises and issues (e.g., Hurricane Katrina, September 11 terror attack, future national-level cyber-attack, etc.). As described in both Chapters 1 and 2, a national security crisis not only has a substantial economic impact, but also a potential for significant loss of life. An ineffective NSPPP fails to mitigate these harmful consequences and results in a negative effect to the United States' resiliency.

The purpose of this modified Delphi study was the development of a framework of an effective NSPPP. An exhaustive literature review identified little research in the area of NSPPPs and no research regarding what makes a NSPPP effective. Specifically, the literature review highlighted the failure to identify an effective NSPPP's key performance and result indicators as the gap in NSPPP research.

Because of the lack of scholarly research, a modified Delphi method was selected to answer the research question. Over a period of three Delphi rounds, a panel of 18 senior public sector and private sector leaders answered numerous open ended, multiple choice, Likert scales, and rank-order questions designed to elicit their unique experience regarding NSPPPs.

Ultimately, the Delphi panelists reached consensus on three key performance indicators

(leadership, information transparency, and value to all partners) and three key result indicators (authorities, goals and objectives, and funding).

In addition to the consensus regarding the key indicators of an effective NSPPP, this study found there was a causal relationship between the response time of a NSPPP and the framework. Specifically, the time component impacted desired leadership qualities and the formation of the NSPPPs goals and objectives. In Round 3, national security scenarios allowed the researcher to observe the distinctive differences in key indicator nuances as affected by time. The results are two frameworks, one to address an immediate national security crisis response and one to address a long-term national security issue. Both frameworks will assist senior United States leaders in creating effective NSPPPs.

Regarding the study of leadership, this study found that the servant leadership theory was most applicable. However, the leader of a crisis response scenario needed to demonstrate different servant leadership qualities than the leader of a long-term response scenario. This study contributes to leadership in that senior leaders now have two frameworks to aid in the formation of effective NSPPPs.

The final question of Round 2 asked the Delphi panelist their opinion as to whether creating an effective NSPPP is possible in light of entrenched bureaucracies, legalities, etc. The majority of the panelists affirmed creating an effective NSPPP is possible as long as the identified indicators are properly addressed. These frameworks will assist senior United States Government leaders in creating an NSPPP with clear and achievable goals and objectives, addressing authorities and funding, selecting the best leader or leaders, and empowering an environment of trust to better national security and increase United States resilience.

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Appendix A

Informed Consent Form



INFORMED CONSENT: PARTICIPANTS 18 YEARS OF AGE AND OLDER

Dear (participant),

My name is Darryl Williams and I am a student at the University of Phoenix working on a Doctorate of Business Administration degree. I am doing a research study entitled What Makes a National Security Public Sector-Private Sector Partnership Effective? A Delphi Study. The purpose of the research study is to leverage a panel of senior public sector and private sector leaders to identify and prioritize the key indicators that make a national security, public sector-private sector partnership effective.

Your participation will be as a member of a Delphi panel. A Delphi study is an iterative process designed to uncover information that is previously unknown. A secure internet survey service will be used to accomplish three rounds of data collection. Data collection will be accomplished via survey questions designed to capture your unique insights regarding leading and participating in national level public sector-private sector partnerships. To foster free-flow information and discussion, participation will be kept anonymous. Although it is expected that the study will last approximately two weeks, the actual time commitment of the participants will be minimal, no more than an hour per round. The size of the panel will be approximately 20 senior leaders. You can decide to be a part of this study or not. Once you start, you can withdraw from the study at any time without any penalty or loss of benefits. The results of the research study may be published but your identity will remain confidential and your name will not be made known to any outside party.

In this research, there are no foreseeable risks.

Although there may be no direct benefit to you, a possible benefit from your being part of this study is more effective partnerships to address national-level crises (both man-made and natural) and more effectively addressing issues that ultimately make the United States more resilient. There will be no cost to participate in this study.

For questions about your rights as a study participant, or any concerns or complaints, please contact the University of Phoenix Institutional Review Board via email at IRB@phoenix.edu.

As a participant in this study, you should understand the following:

1. You may decide not to be part of this study or you may want to withdraw from the study at any time. If you want to withdraw, you can do so without any problems.
2. Your identity will be kept confidential.
3. Darryl R. Williams, the researcher, has fully explained the nature of the research study and has answered all of your questions and concerns.
4. If interviews are done, they may be recorded. If they are recorded, you must give permission for the researcher, Darryl R. Williams, to record the interviews. You understand that the information from the recorded interviews may be transcribed. The researcher will develop a way to code the data to assure that your name is protected.

5. Data will be kept in a secure and locked area, retained for three years, and then destroyed. The process of data storage and destruction is as follows: All individual-specific information is encrypted and stored in a password-protected file. In addition, the panelists' identity and personal information (e.g., name, address, phone number, etc.) is stored hard copy only in a rotary dial combination safe. At the end of 3 years, the hard-copy data will be shredded via crosscut shredder. The soft-copy data will be electronically shredded and overwritten at least ten times.
6. The results of this study may be published.

“By signing this form, you agree that you understand the nature of the study, the possible risks to you as a participant, and how your identity will be kept confidential. When you sign this form, this means that you are 18 years old or older and that you give your permission to volunteer as a participant in the study that is described here.”

I accept the above terms. I do not accept the above terms. **(CHECK ONE)**

Signature of the interviewee _____ Date _____

Signature of the researcher _____ Date _____

Appendix B

Confidentiality Statement



What Makes A National Security Public Sector-Private Sector Partnership Effective? A Delphi Study

Darryl Ray Williams

CONFIDENTIALITY STATEMENT

As a researcher working on the above research study at the University of Phoenix, I understand that I must maintain the confidentiality of all information concerning all research participants as required by law. Only the University of Phoenix Institutional Review Board may have access to this information. "Confidential Information" of participants includes but is not limited to: names, characteristics, or other identifying information, questionnaire scores, ratings, incidental comments, other information accrued either directly or indirectly through contact with any participant, and/or any other information that by its nature would be considered confidential. In order to maintain the confidentiality of the information, I hereby agree to refrain from discussing or disclosing any Confidential Information regarding research participants, to any individual who is not part of the above research study or in need of the information for the expressed purposes on the research program. This includes having a conversation regarding the research project or its participants in a place where such a discussion might be overheard; or discussing any Confidential Information in a way that would allow an unauthorized person to associate (either correctly or incorrectly) an identity with such information. I further agree to store research records whether paper, electronic or otherwise in a secure locked location under my direct control or with appropriate safe guards. I hereby further agree that if I have to use the services of a third party to assist in the research study, who will potentially have access to any

Confidential Information of participants, that I will enter into an agreement with said third party prior to using any of the services, which shall provide at a minimum the confidential obligations set forth herein. I agree that I will immediately report any known or suspected breach of this confidentiality statement regarding the above research project to the University of Phoenix, Institutional Review Board.

Signature of Researcher

Printed Name

Date

Signature of Witness

Printed Name

Date

Appendix C

Shapiro-Wilk Normality Tests

Round 2, Question 2:

Tests of Normality			
	Shapiro-Wilk		
	Statistic	df	Sig.
Communication	.875	11	.089
Leadership	.755	11	.002
Resources	.947	11	.609
Authority	.834	11	.027
Goals & Obj	.857	11	.053
Ego of Partners	.668	11	.000
Value Felt	.838	11	.029
Urgency	.936	11	.473
Unity	.931	11	.425

Round 2, Question 4:

Tests of Normality			
	Shapiro-Wilk		
	Statistic	df	Sig.
Gov Policies	.887	11	.128
Outputs	.846	11	.038
Leadership	.855	11	.050
Resources	.870	11	.077
Focus	.955	11	.707
Bureaucracy	.886	11	.125
Goals & Obj	.809	11	.012
Communication	.748	11	.002

Round 2, Question 7:

	Tests of Normality		
	Shapiro-Wilk		
	Statistic	df	Sig.
No change	.750	10	.004
Methods change	.825	10	.029
Obj change	.846	10	.051
G&O change	.824	10	.028

Round 2, Question 8:

	Tests of Normality		
	Shapiro-Wilk		
	Statistic	df	Sig.
Imminent Threat	.833	10	.036
Attack Occurred	.509	10	.000
Time Transpired	.594	10	.000
Potential Threat	.650	10	.000

Round 2, Question 14:

	Tests of Normality		
	Shapiro-Wilk		
	Statistic	df	Sig.
Integrity	.843	10	.048
Competence	.843	10	.048
Benevolence	.890	10	.168

Round 2, Question 15:

Tests of Normality

	Shapiro-Wilk		
	Statistic	df	Sig.
Integrity	.835	10	.039
Competence	.947	10	.629
Benevolence	.915	10	.318

Round 2, Question 16:

Tests of Normality

	Shapiro-Wilk		
	Statistic	df	Sig.
Passion	.784	10	.009
Visionary	.917	10	.332
Communicator	.933	10	.477
Moral Courage	.741	10	.003
Selfless	.836	10	.039
Decisive	.922	10	.376

Round 2, Question 17:

Tests of Normality

	Shapiro-Wilk		
	Statistic	df	Sig.
Passion	.916	10	.321
Visionary	.954	10	.716
Communicator	.881	10	.135
Moral Courage	.962	10	.804
Selfless	.835	10	.038
Decisive	.865	10	.087

Round 3, Question 1:

Tests of Normality

	Shapiro-Wilk		
	Statistic	df	Sig.
Goals & Obj	.951	11	.655
Barriers Addressed	.842	11	.033
Bureaucracy	.899	11	.181
Funding	.891	11	.142
Authorities	.935	11	.467

Round 3, Question 3:

Tests of Normality

	Shapiro-Wilk		
	Statistic	df	Sig.
Goals & Obj	.816	11	.015
Barriers Addressed	.840	11	.032
Bureaucracy	.916	11	.285
Funding	.863	11	.064
Authorities	.874	11	.086

Round 3, Question 5:

Tests of Normality

	Shapiro-Wilk		
	Statistic	df	Sig.
Leadership	.734	11	.001
Info Sharing	.821	11	.018
Unity	.749	11	.002
Urgency	.949	11	.628
Communications	.887	11	.128
Value	.920	11	.321

Round 3, Question 7:

	Tests of Normality		
	Shapiro-Wilk		
	Statistic	df	Sig.
Leadership	.695	11	.000
Info Sharing	.949	11	.634
Unity	.928	11	.389
Urgency	.928	11	.389
Communications	.893	11	.150
Value	.795	11	.008

Appendix D

Round 1 Pilot Test Panel Responses

Q2: Were you part of an ineffective NSPPP? If so, what are the reasons for its ineffectiveness?

You may want to open these questions a bit more to allow them to share insights they may have about effective/ineffective partnerships they observed but weren't actually a part of. This comparison (between a PPP they may have been in vs one they may have seen elsewhere) may offer some insights.

Q3: Many of you are members of United States Government senior advisory boards or private sector boards of directors. On these boards are members that have either led or have been part of successful or ineffective NSPPPs. In your discussions with these individuals, have they ever identified reasons for their NSPPP succeeding or failing? If so, what were those reasons?

May want to say "many of you are OR HAVE BEEN..."

Q4: If your NSPPP was successful, how clear and achievable were the NSPPP's goals and objectives?

The explanation above this question is a bit wordy and confusing. See if you can simplify/pear it down a bit. Try to avoid your own dissertation jargon-keep it clear and simple for them. You say "goals & obj" 3 times. Might want to just delete everything after the 3rd sentence?

Do you want to differentiate here between goals/obj established at the outset and those that may have developed over time during the crisis? I've found that the most successful PPPs tend to evolve. Might be interesting to see if this aligns with what your interviewees experienced? Evolution of goals/objectives might be its own separate question?

Q6: If you were part of a successful NSPPP, what was the authority level of the overarching United States Government oversight (e.g., Presidential, congressional, Agency, Agency division, etc.)? Do you feel that the level of authority contributed, detracted, or was not factor in the success of the NSPPP? Why or why not?

Not sure what you mean by "authority level" and what you're trying to get at with this one? Are you trying to ask if the PPP was enabled or limited in any way by an affiliation with a government agency? Isn't that kind of the nature of the beast? Is the real question here something along the lines of "to what extent did government agencies enable or detract from the success...?"

Q7: If you were part of an ineffective NSPPP, what was the authority level of the overarching United States Government oversight (e.g., Presidential, congressional, Agency, Agency division, etc.)? Do you feel that the level of authority contributed, detracted, or was not factor in the ineffectiveness of the NSPPP? Why or why not?

Same as above?

Q8: If you were part of a successful NSPPP, did you have the funding and the resources necessary to accomplish your stated goals and objectives? Do you feel that the amount of funding and resources contributed, detracted, or was not factor in the success of the NSPPP? Why or why not?

This is already a packed question, but may also be worth asking the SOURCE of funding (private vs public)

Q10: In your opinion and from your experience, how important is leadership to the success or failure of the NSPPP?

I'd delete the "in your opinion"-- its ALLY their opinion! :)

Appendix E

Round 1 Questions

The purpose of the following questions is to get your strategic thoughts, insights, assessments, and lessons learned regarding NSPPPs you led, contributed to, or observed that either succeeded or failed. In follow-on sections of this survey, questions will attempt to add fidelity to these initial strategic thoughts.

1. For this question, consider successful NSPPPs that you led, were a part of, or observed. What are some of the reasons that the NSPPP succeeded?
2. For this question, consider ineffective or failed NSPPPs that you led, were a part of, or observed. What are some of the reasons that the NSPPP was ineffective or failed?

The following is an optional question. If this question does not apply to you, please move on to the next section.

3. Many of you are or have been members of United States Government senior advisory boards or private sector boards of directors. On these boards are members that have either led or have been part of successful or ineffective NSPPPs. In your discussions with these individuals, have they ever identified reasons for their NSPPP succeeding or failing? If so, what were those reasons?

The following two sections attempt to bring fidelity to your strategic insight and thoughts. The first of these sections focuses on identifying key result indicators. A key result indicator shows how well a NSPPP meets stated goals and objectives.

4. For successful NSPPPs that you led, were a part of, or observed, how clear and achievable were the NSPPP's goals and objectives?
5. For ineffective or failed NSPPPs that you led, were a part of, or observed, how clear and achievable were the NSPPP's goals and objectives?
6. For NSPPPs that you led, were a part of, or observed, did the original goals and objectives stay the same, change, or evolve over the lifespan of the NSPPP? Did changes to the original goals and objectives have any impact on the success or failure of the NSPPP?

Even with clear and achievable goals and objectives, can a NSPPP succeed if it does not have adequate organizational and oversight authorities? The following two questions focus on the importance of authorities in a NSPPP.

7. If you were part of or observed a successful NSPPP, to what extent did the responsible United States Government branch, department, agency, or organization enable or detract from the

success? How did they enable or detract from the NSPPP success? If the United States Government was a detractor, what would be a possible rectifying solution?

8. If you were part of or observed a failed NSPPP, to what extent did the responsible United States Government branch, department, agency, or organization enable or mitigate the ineffectiveness? How did they enable or mitigate the NSPPP ineffectiveness? If the United States Government oversight was a failure enabler, what would be a possible rectifying solution?

As stated in the introduction page, a national security crisis has catastrophic economic consequences. However, addressing a national security crisis via a NSPPP also requires funding and resources. The following two questions focus on the importance of funding and resources in a successful or ineffective NSPPP.

9. Regarding the NSPPP you led, were a part of, or observed, was there adequate funds and resources to accomplish the NSPPP stated goals and objectives? How did the adequacy of funds and resources contributed or detracted from the success or failure of the NSPPP?

10. Regarding the NSPPP you led, were a part of, or observed, was the primary source of funds public sector or private sector? How did the source of funds contributed or detracted from the success or failure of the NSPPP?

The second fidelity section focuses on identifying key performance indicators. Key performance indicators are internal qualities that enable a NSPPP to accomplish its stated goals and objectives. The following two questions focus on the aspect of leadership and its contribution to the overall success or failure of an NSPPP.

11. From your experience or observations, how important is leadership to the success or failure of a NSPPP?

12. From your experience or observations, what are foundation leadership qualities necessary for a successful NSPPP?

The following two questions focus on the topic of information sharing and its importance in the success or failure of a NSPPP.

13. In your experience or observations, how important is transparency and information sharing to the success or failure of the NSPPP? Please provide specifics to validate your conclusion.

14. In your experience or observations, what were some barriers to effective transparency and information sharing in a NSPPP?

The previous questions attempted to capture strategic insight and break down this insight into key performance and result indicators. However, it is impossible to craft initial questions that can comprehensively and exhaustively cover all aspects of a NSPPP. This

last question is an opportunity for the Delphi panelist to highlight a strategic truth, performance indicator, or result indicator that was not addressed in the previous questions. Insight from this section will be addressed in Round 2 survey questions

15. From your experience or observations, what are other strategic insight, performance indicators, result indicators, or lessons learned that these questions missed, but should be addressed as part of this Delphi study?

Appendix F

Round 1 Question 6

Q6 For NSPPPs that you led, were a part of, or observed, did the original goals and objectives stay the same, change, or evolve over the lifespan of the NSPPP? Did changes to the original goals and objectives have any impact on the success or failure of the NSPPP?

Answered: 15 Skipped: 0

#	Responses	Date
1	Successful NSPPPs stayed on track with the initial goals. However when a leadership change took place, new leadership frequently had to change the goals or scope of the NSPPP in order to demonstrate leadership rather than continuing a legacy. Membership consequently changed as well over time having a negative impact on the NSPPP.	12/14/2015 8:09 PM
2	Sometimes the goal changes over time. External events such as newly discovered risks or new technology capabilities can warrant a shift in strategy or priorities, and these can be addressed effectively if the change is very deliberate and explicit. Sometimes objectives change in that they become more clear as the program launches and work gets under way, and this can be quite effective for the program.	12/14/2015 5:38 AM
3	Goals and objectives were achieved and, inevitably, the partnership evolved (always) to include a greater risk envelope, new goals and objectives. So it was key to start with achievable objectives/goals to exercise the machinery of the partnership as well as build up trust. Changes only occurred when both parties became confident that stretch objectives are achievable by both parties without enhancing risk.	12/13/2015 6:26 PM
4	Successful partnerships must be flexible and nimble so they can also sort through the multiple of overlapping requests from federal, state and local government agencies. Partnerships must be structured to allow business and government leaders to: • coordinate requests from multiple government agencies; • design their own initiatives; • rank initiatives according to the needs and priorities of their respective regions; and • develop and implement a coherent plan.	12/11/2015 4:32 PM
5	Many of them changed over time and I believe it is crucial to continue to evaluate and update the goals. While some of the overall goals may stay the same, but the objectives must adjust with the change of the environment.	12/11/2015 12:20 PM
6	in every case, the goals and objectives evolved over the lifespan of the NSPPP, as you would expect. The changes minimally affected the success of the effort, but only in the scope of reparations or recovery, and perhaps a timeline for accomplishment. The benefit of having full and equal participation by all involved parties is that all will understand the reasons for change, and will be a party to the final decisions.	12/11/2015 10:29 AM
7	Due to the continued existence of barriers, NSPPPS always require energy (resources) to be put into the system. When partnerships have served their purposes or the benefits no longer exceed the risk they breakdown. A good example is the cooperation of tech companies with the USG related to information exchange. Once public the cost increased and the partnerships were impacted.	12/11/2015 10:24 AM
8	To survive over the long term, NSPPPs, must be flexible and evolve as the type of crisis situation they are addressing changes and as the needs/willingness/abilities of the partners change. This is a critical factor in their success. The War Industries Board is an interesting case in this regard. While I would call it an ad hoc, shorter term partnership, while it lasted, it very effectively adjusted as demanded by changes in the war and the ability/willingness of partners to function within the parameters of the partnership.	12/11/2015 7:01 AM
9	no - they did not change	12/10/2015 1:15 PM
10	Ultimate goals and objectives did not change...the path to reach those goals and objectives may have changed. I am not even sure how you can embark on a NSPPP having established goals and objectives to then change them in mid-stream.	12/10/2015 12:16 PM
11	They changed many times, and were modified as more information was learned about organizations, their policies, and organizations learned more about others.	12/10/2015 12:07 PM
12	The goals and objectives frequently evolved as the effort progressed, as new obstacles or challenges were identified. This was essential to the success of the effort.	12/9/2015 9:26 AM
13	Flexibility is key and if the stakeholders understand the value here then all participants would be willing to change	12/9/2015 8:33 AM

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14	The goal never changed and neither did the poor leadership	12/9/2015 8:16 AM
15	In a hyper-dynamic complex adaptive environment, they must evolve over time; staying static is a pre-condition to failure.	12/9/2015 6:25 AM

Appendix G

Round 1 Questions 7 and 8 Narrative Answers

Responses
NSPPPs (and Advisory Boards) evolve over time and take on a bureaucratic life of their own. The DSB is a good example of partnership that has taken on the personality of its sponsor but has lost relevance.
The USG enabled success often by clearing obstacles and providing capabilities that private industry could not achieve. For example, in Katrina the USG provided Federal marshals to provide protection for deliveries of required supplies into mission critical industry data centers. In the 9/11 response, the USG was extremely helpful in providing credentialing procedures very quickly so that key private industry personnel could get into the disaster area to perform recovery work. Also, the USG played a very important role through the National Communications Center to streamline information flow and coordination between the USG and private industry, and also between companies within private industry. Examples include aerial photography during hurricanes such as Katrina, and coordination of supply deliveries (fuel, water, etc.) across companies.
The USG partner was enabled by departmental leadership by having an experienced senior lead the relationship; have organic capabilities to sustain it, e.g., contracts, funding, and security; and had a level of risk tolerance that was unusual for most Departmental activities. Attributes like speed to decision, funding certitude, flexibility, and the ability to protect the partner's equities were constantly cited as deal makers for continuation of the partnership.
I have been on both sides. The USG partners have frequently been disappointing because they are called to other internal duties. While I was in the USG and responsible for creating partnerships, I was passionate about that mission but criticized by some of my government colleagues for not spending more time at my desk. Despite the government giving lip service to partnerships, they do not reward them. I created a public private partnership that was very innovative and submitted the team for an intelligence community award and was told that it did not accomplish an IC mission.....
In every NSPPP that I have been associated with the USG is a detractor, it is a tightly constrained monopoly organization not designed for agility or as a partner. Individual leaders have carved out, sometimes legally, sometimes merely not illegally, sometimes (determined later) illegally, authority to engage with the partner. Solution is to reduce laws meant to advantage constituencies and empower leaders to execute good judgement. The USG should be more of an enabler than a director or overseer.

On the one hand, the government is a keen partner. They genuinely want to work with the private sector and over time have come to understand the importance of engaging the private sector in national security crises. The challenge, however, continues to be the significant cultural disconnect between the sectors. In general, the private sector seems to have a better understanding of the public sector than visa versa. Governmental agencies as a whole, perhaps with the exception of the certain offices within the Department of Homeland Security, continue to fundamentally lack an understanding of how the private sector "works" and why they are coming to the table. As a result, the private sector often continues to be seen by much of government as a never ending funding source that offer an opportunity to bypass budget restrictions. Private sector leaders also frequently complain that for much of the government, a "partnership" involves the private sector sharing time, money and information with the government and seldom reciprocate. While on the one hand, there is a patriotic element to much private sector participation, on the other hand, patriotism only goes so far. Private leaders have expressed a great deal of frustration about the inability/unwillingness of government to see them as more than just another information source and to meaningfully engage as partners.

A successful NSPPP starts with the government wanting it to work in a true sense rather than just a window dressing of success. So, if it worked it was very much due to correct government attitude

The responsible authority will always have a direct impact on the success or failure of NSPPP. They must have buy in from the beginning and maintain that buy in throughout the process. They cannot be allowed to be a detractor. As soon as it becomes evident that they are...and they are the responsible oversight entity, you have lost! You must keep them "in the hunt" the entire time.

The government is definitely a detractor, due to policy, regulatory, privacy, and a variety of existing statutes. They create unacceptable time delays, which would certainly impact lives and property loss.

Problems were encountered when multiple USG Departments or Agencies were involved, which caused overlap and confusion in the effort. Frequently, contradictory guidance or information came from the various USG participants.

Having a clearly designated USG lead is essential to the success of an effort. The same goes for an effort where multiple private sector entities are involved.

Their traditional thinking within an innovative community provides inadequate response times and less access/awareness to providers not interested in participating in the gov't success.

The government leadership, rules, and bureaucracy never changed so I resigned. I'm not optimistic that career government management will ever be able to function effectively. The world is changing too rapidly which requires a different style of leadership which should probably come from the private sector

For these engagements to truly work to the benefit of the United States of America, then the roles and responsibilities of the USG have to shift from Command and Control to Command and Collaboration; and the operational aspect needs to shift from actor to enabler. More real power exists outside, rather than inside. However, USG must mean USG, not exclusively Executive Branch.

A failed NSPPP in which I participated was marginalized by the sponsoring organization and lost its relevance. In part because the original construct of the NSPPP was threatening to the new leadership.

The USG made it difficult when political appointment changes caused churn and uncertainty in purpose or priority of the program. On-again-off-again funding decisions created tremendous waste of money and time. I don't have an easy answer to what could be a rectifying solution, because political changes are a fact of life in our democracy. I guess one way to lessen the problem might be to encourage more crisp changes, so that if there is a change in priority it is done quickly and cleanly with less waste.

Failed partnerships almost universally had asymmetrical expectations of partnership valuation; mismatching of cultures; mismatch in ability to move/decide; and a perception that only one party was benefiting from the relationship - a perception frequently help by both parties.

It is very easy for make a partnership about your own parochial needs. The partnership must provide mutual benefits for all partners.

The government was almost always at fault for failure, largely by trivializing the value industry brought - in theory this could be fixed but would require something of a change in culture on the part of the government.

During our exercises, they did adjust to a minor extent, but it takes years to modify organizations basic procedures. It took many examples of organizational failure to modify behaviors.

The biggest issue I have observed with USG participants is delivering on their part of the joint effort in timely fashion, or being unable to quickly adjust to changes in the situation. Also where there are multiple USG Departments of Agencies in an effort, their priorities don't always line up in getting things done essential to the success of the effort.

The "right" facilitator who knows "how to collaborate" in this NSPPP process is paramount.

Desire to control everything, by people with limited experience or knowledge, the USG system and process could kill any good idea.

Appendix H

Round 1 Question 9

Q9 Regarding the NSPPP you led, were a part of, or observed, was there adequate funds and resources to accomplish the NSPPP stated goals and objectives? How did the adequacy of funds and resources contributed or detracted from the success or failure of the NSPPP?

Answered: 14 Skipped: 1

#	Responses	Date
1	Funding is critical. Private sector participation will still be limited by funds by the participating companies, though some view the NSPPP as a line of business, dedicating personnel full time. However, innovative companies and entrepreneurs (those that might have the best ideas) don't have the resources to participate without USG assistance.	12/14/2015 8:25 PM
2	There never seems to be "enough" funding and resources; no matter how much we have, it seems we need more. What I can say is that with whatever limitations to resources there are, in successful initiatives there is a clear means of prioritizing and decision-making.	12/14/2015 5:53 AM
3	I had organic funds that I controlled. I had a top-line that was relatively stable year over year, and I was able to convey to may partner with some degree of assurance how many of my resources would go to the partnership on any given year. Govt does not understand the criticality of resource forecasting that industry lives with every day. So the funds and resources were less important than their predictability.	12/13/2015 6:39 PM
4	There obviously needs to be a source of funding for initiative development and implementation. To my knowledge there is no federally structure source of competitive funding for P3 initiatives.	12/11/2015 4:47 PM
5	As usual, it would seem there wasn't adequate funds but honestly, not many funds are necessary. What does need to be reviewed is the use of government funds for partnerships. On several occasions, I was not allowed to serve coffee at a meeting with private sector partners. I used my own funds to host meetings and to give awards to private sector partners. I was not alone. These "conflict of interest" rules must be examined.	12/11/2015 12:27 PM
6	NSPPS were never adequately funded but leaders for the individual partners found resources. As mentioned before, NSPPPs rarely succeed without high level leadership being willing to risk resources to ensure success. With leadership and resources barriers can be lowered or people motivated to overcome them. Without leadership and resources partnerships fail.	12/11/2015 10:34 AM
7	Funding is always an issue. Government funds for these purposes are limited, and in partnering with the private sector, the government is able to obtain resources and/or money to boost resilience efforts. The lack of a formalized, funded structure able facilitate PPPs, makes funding a constant issue and one in which the private sector tends to be leaned heavily upon. This can, over time, lead to frustration by private partners. In addition, because profit motives will always drive private decision making, this also means governmental access to these funds is limited. (Usually to the duration of the specific crisis event at hand.)	12/11/2015 7:19 AM
8	another reason the government tends to ask for industry partners - they aren't really interested in partners, just partner money. So yes -the need for industry6 money to make something work tends to inhibit success unless industry can tie a clear quantifiable benefit to the contribution they make	12/10/2015 1:31 PM
9	Yes. Was critical for success.	12/10/2015 12:21 PM
10	for our exercises, it was quickly determined that the organizations did not have the resources, and had to reach out. we found that the more organizations that were involved, it directly increased the resource pool, but added to interagency communication and conflict issues, which need to be addressed	12/10/2015 12:10 PM
11	Having the resources readily available, including any funding which may be necessary is essential to the success of an effort. The mutual goals and objectives need to defined with this in mind. Most of the resources in an effort are provided by the private sector, but the USG must frequently provide contractual or legal coverage to an effort, or remove obstacles in timely fashion. ,	12/9/2015 9:51 AM
12	For the original pilot, yes. For follow-on work and under a no-budget work environment, then no, the funds were inadequate.	12/9/2015 8:39 AM

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13	We were early after 911 and so funding was not an issue, but I'm sure that funding would be an issue after an economic disaster in which only a portion of the nation were effected.	12/9/2015 8:25 AM
14	Yes, the reality is the greater the crisis, the greater the funding;	12/9/2015 6:31 AM

Appendix I

Round 1 Question 11

Q11 From your experience or observations, how important is leadership to the success or failure of a NSPPP?

Answered: 14 Skipped: 1

#	Responses	Date
1	Leadership is critical.	12/14/2015 8:29 PM
2	Leadership is incredibly important in many ways. First, leadership drives the environment (e.g., one of trust vs. suspicion). Second, leadership drives the achievement of clarity of purpose. Third, leadership establishes the systems and mechanisms for decision-making during the initiative.	12/14/2015 5:58 AM
3	Each partner will experience stress and high/lows in the relationship. It was critical to ensure that senior members of each party periodically meet and discuss the state of the partnership. Resolution of issues were a must and reinforcing successful aspects of the relationship were essential.	12/13/2015 6:43 PM
4	One of the most critical components. A leader must have the desire, commitment, collaboration, and strategic vision for implementation of a partnership.	12/11/2015 4:48 PM
5	I didn't know this question was coming, but you can see from my previous responses that leadership is critical. Leadership from all components of the partnership.	12/11/2015 12:29 PM
6	NSPPPs rarely exceed without high level leadership being willing to risk resources to ensure success. With leadership and resources barriers can be lowered or people motivated to overcome them. Without leadership and resources partnerships fail.	12/11/2015 10:36 AM
7	Absolutely critical, especially in partnerships that lack a strong organizational structure and are single-event oriented.	12/11/2015 7:21 AM
8	it is the key factor in success	12/10/2015 1:33 PM
9	Critical!	12/10/2015 12:22 PM
10	Leadership is important, to allow multi-faceted responses across organizations, which is the most difficult part of the response to any issue	12/10/2015 12:12 PM
11	Leadership in both the USG and the private sector is absolutely essential to the success or failure of an initiative. Both sides must have a clearly defined overall leader, as well as open lines of coordination and communication to identify and resolve the many issues which invariably arise.	12/9/2015 10:14 AM
12	critical to have buy-in at the top	12/9/2015 8:40 AM
13	Leadership is the most important factor	12/9/2015 8:29 AM
14	True leadership is essential	12/9/2015 6:32 AM

Appendix J: Round 1 Question 13

Q13 In your experience or observations, how important is transparency and information sharing to the success or failure of the NSPPP? Please provide specifics to validate your conclusion.

Answered: 14 Skipped: 1

#	Responses	Date
1	Transparency of process is key. Transparency of that actual substance is dependent on the nature of the effort.	12/14/2015 8:33 PM
2	I think we understand that some information cannot/should not be transparent, e.g. due to security risks of exposure. However, there is a very strong need for transparency of certain information, such as program objectives/outcomes, and the decision-making process for managing the program.	12/14/2015 6:04 AM
3	Many times, information is the only fungible benefit to the partnership. Failures of most NSPPPs generally can be traced to the one-way street of information flowing from industry to government. The successful partnerships I participated in, the industry partner was constantly provided information, even if subjective opinions, that were of intrinsic value to the industry partner.	12/13/2015 6:50 PM
4	Extremely important. As an example: The Missouri Public Private Partnership (MOP3) Committee is a voluntary coalition of Missouri's private and public sector leaders, who share a commitment to strengthening the capacity of the state to prevent, prepare for, respond to, and recover from disasters. MOP3 partners work to reduce the impact of emergencies on their communities by pledging resources and offering support services. The committee promotes the application of best business practices; partnering on planning, training and exercise development; fostering participation in intelligence / information fusion; and provide a private sector platform to address issues and concerns for homeland security initiatives. Key descriptors are Collaboration, Communication, and Cooperation.	12/11/2015 4:48 PM
5	Transparency and information sharing are critical. There must be respect and trust from all parts of the partnership so that when all informations cannot be shared, there will be understanding.	12/11/2015 12:31 PM
6	Successful collaboration requires lowering barriers to collaboration or the existence of motivating factors sufficient to overcome such barriers. These barriers can be cultural (HA NGOs and the military can be uncomfortable working together), legal (contractual constraints imposed on interactions between federal and non-federal entities, posse comitatus, legal liability concerns related to the safety of people and property), informational (protection of classified, private, proprietary, etc.) or, perhaps most importantly, goal (shared understanding of, and intent to achieve, common or closely related end state) related. Transparency and information sharing enable each of these barriers to be lowered. Additionally, transparency and information sharing are required to enable the alignment of objectives and actions.	12/11/2015 10:39 AM
7	From what I have observed, transparency and information sharing tends to be more problematic for the public sector. Perhaps surprisingly, once engaged in an NSPPP, private partners seem very willing to openly and transparently share information. They see it as part of engaging the PPP and a contribution they can make to contribute to the enhancement of national security. They are ready and willing to this, not only for patriotic/altruistic reasons, but because disasters (be they caused by man or nature) are bad for business and it's in their best interests to do all they can to avoid these kind of events. As a result, they are often happy to use and share findings from their own networks and systems to participate in a PPP for these purposes. The government, on the other hand, tends to happily accept all the intel they can from the private sector, while providing little (if anything) in return. Often they don't even share what the intel that private companies provide may have been used for. As a result, the private sector is left unsure if their contributions make any sort of difference and have the sense that their own networks/systems are no more secure than they were before the PPP. Steve Carmel gave a great example of this--it's in my book-- to do with conducting joint exercises with the Coast Guard.	12/11/2015 7:37 AM
8	critical. It is the only way trust is built amongst a group that have inherently different views of the world.	12/10/2015 1:35 PM
9	Within the limits of security, both are critical. Not sure why specifics are important as this question is key to success or failure.	12/10/2015 12:24 PM
10	very important. In our exercised, the ability to communicate the status of an issue. We found many organizations consumed information, but did not propagate, and only updated their superiors instead of passing, or sharing their data.	12/10/2015 12:14 PM

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11	Both the USG and private sector need to be transparent and share information, within the USG in efforts involving multiple Departments and Agencies, within the private sector in efforts involving multiple entities, as well as across the USG/private sector boundary. All the stakeholders need visibility into the actions and problems of the other participants as the effort progresses. One specific example during Katrina: DHS HQ, FEMA, USCG, DoD, and State/Local authorities did not communicate well within their ranks, and mass confusion resulted with the private sector entities doing restoration efforts, such as power and communications.	12/9/2015 10:24 AM
12	critical	12/9/2015 8:41 AM
13	Information sharing within the team is very important. Everyone must be on the same page on priorities and direction so that the team can change direction together when required thus avoiding confusion	12/9/2015 8:34 AM
14	Ubiquitous transparency works against effective policy implementation. Free, fair and complete exchange of information (Metcalf and Reed's law) using both smart push and smart pull is essential.	12/9/2015 6:36 AM

Appendix K

Round 2 Questions

1. When asked for reasons why a National Security Public Sector-Private Sector Partnership (NSPPP) was effective, the following reasons were recurring. Do you agree or disagree that these criteria are necessary for an effective NSPPP?

Agree Disagree

- Open and frank communication between partners
- Strong leadership
- Adequate resources
- Authority to act
- Clear goals and objectives
- No egos among partners
- All partners feel valuable to success of NSPPP
- Shared sense of urgency
- Unity of purpose

2. Rank order the following list of criteria associated with an effective NSPPP (with 1 being the most important).

- Open and frank communication between partners
- Strong leadership
- Adequate resources
- Authority to act
- Clear goals and objectives
- No egos among partners
- All partners feel valuable to success of NSPPP
- Shared sense of urgency
- Unity of purpose

3. When asked for reasons why a NSPPP fails, the following statements were recurring. Do you agree or disagree that these statements contribute to a failed NSPPP?

Agree Disagree

- Government policies, regulations, and statutes
- Too concerned with outputs (e.g., meetings) versus outcomes (e.g., NSPPP success)
- Weak leadership
- Lack of resources
- Lack of focus
- Government bureaucracy
- Lack of common goals and objectives
- Compartmentalized communication

4. Rank order the list of criteria associated with a failed NSPPP (with 1 being most damaging).

- Government policies, regulations, and statutes
- Too concerned with outputs (e.g., meetings) versus outcomes (e.g., NSPPP success)
- Weak leadership
- Lack of resources
- Lack of focus
- Government bureaucracy
- Lack of common goals and objectives
- Compartmentalized communication

The Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1988 is the capstone document for a federal response to major disasters and emergencies. The Stafford Act provides minimum criteria for an effective federal response to major disasters. An effective response to a major disaster must:

1. Alleviate the physical damage of the disaster
2. Address the loss of critical services and loss of life
3. Mitigate the hardship and suffering to the populace affected by the disaster event.

The National Response Framework (NRF) of 2013 is the authoritative guide on how the federal government executes the Stafford Act in response to a major disaster. The NRF specifically advocates an NSPPP approach to a major disaster

response.

5. The Stafford Act was written specifically for a public sector audience; however, is it applicable to a private sector audience? Are the strategic goals listed in the Stafford Act adequate for a private sector response to a major disaster and emergency? If not, what changes should be made?

6. There is no Stafford Act for preparatory NSPPPs created to address long-term national security crises, vulnerabilities, and emerging threats. What should be the major strategic goals of a Stafford Act type document for preparatory NSPPPs?

- Strategic Goal 1:
- Strategic Goal 2:
- Strategic Goal 3:
- Strategic Goal 4:
- Strategic Goal 5:

There was clear consensus that an effective NSPPP must have clearly defined goals and objectives. Goals and objectives must also be realistic and achievable. However, there was much debate concerning whether goals and objectives of a NSPPP are static, changing, or evolving.

7. Which of the following statements best represent your experience and lessons learned regarding goals and objectives of an effective NSPPP? Use the comment box to change the statement as necessary to make it more accurate.

Completely Disagree Neither agree or Disagree Disagree Agree Completely Agree

- Goals and objectives of an NSPPP never change
- Goals and objectives of a NSPPP never change; however, the methods used to achieve the goals and objectives continually change and evolve as the situation, threat, or crisis changes
- The strategic goals of a NSPPP never change; however, the objectives continue to change and evolve as the situation, threat, or crisis changes
- Goals and objectives of a NSPPP must change as a situation, threat, or crisis changes

There was clear consensus that the public sector should be the critical enabler of a NSPPP; however, it was consistently identified as a detractor. According to your responses, the public sector acts as a detractor via its entrenched bureaucracies, policies, legal statutes, inter-agency conflicts, and other barriers. However, many of you stated that there is a difference in how the public sector enforces these barriers in response to a major disaster (e.g., terror attack or natural disaster) versus a long-term national security issue (e.g., national power grid vulnerabilities and port security).

8. In your experience or observations, how does the factor of time or imminence of crisis affect the public sector's adherence to established bureaucracies, policies, statutes, and other barriers?

Public sector will act as an enhancer and most barriers will be circumvented

Public sector will act as enhancer as long as all established barriers are followed

Public sector's strict adherence to established barriers act as a detractor to an effective NSPPP

- There is an imminent threat of a major disaster, attack, or emergency that will catastrophically effect both the public and private sectors
- A national security crisis has just occurred that caused catastrophic damage and destruction in the United States
- Time has transpired since the national security crisis occurred. Associated public sector funds are now part of an established funding line with an identified organization of record
- A NSPPP is established to research and create a list of recommendations that will negate or mitigate a potential national security crisis

There was a clear consensus that there should be a singular public sector organization identified as the lead for the NSPPP. There was also clear consensus that even if a singular public sector organization is identified as lead, interagency conflicts will continue to undermine the effectiveness of the NSPPP. These conflicts occur because of overlapping spheres of authority, numerous congressional committees accomplishing oversight, numerous funding sources, etc.

9. From your experience and insight, what would you recommend as a solution to problem of continued interagency conflict affecting NSPPP effectiveness?

- The singular NSPPP lead should reside at the Executive level, directly reporting to the President
- The singular NSPPP lead can reside in a public sector organization or agency but

must report directly to the Principle (Cabinet- level department Secretary)

- The singular NSPPP lead should be a quasi-governmental organization (funded by the United States Government, but managed privately (e.g., Federal Reserve))
- None of the above. Interagency conflict is a fact of life regarding a NSPPP and there is no viable solution

10. What was the logic behind your answer to #9?

There was clear consensus that leadership is one of the most important elements of an effective NSPPP. Responses characterized the leadership of failed NSPPPs as:

1. **Lacking expertise**
2. **Wrong type of leader**
3. **Unable to rapidly adjust to evolving events**
4. **No concept of the private sector point of view**

There were many responses that characterized leadership of effective NSPPPs. Some of the more popular characterizations were:

1. **Patience with passion**
2. **Ability to prioritize**
3. **Good communicator**
4. **Integrity**
5. **Competence**
6. **Selfless**
7. **Visionary**

The following questions will elicit your insight regarding leadership criteria, styles, and effectiveness.

11. For the NSPPP to be effective does there need to be a bond of trust with the NSPPP leader?

12. If trust in the NSPPP leader is critical to the success of the NSPPP, should the leader need to be a person of inherent and known trustworthiness before taking on the role of NSPPP leader or can the leader be relatively unknown to the NSPPP partners and build the trust after taking on the leadership role?

13. Does the answer to Question #12 change if the NSPPP is created to address a long-term issue (e.g., national power grid vulnerabilities) versus a major disaster response (e.g., 9-11, Katrina)?

The following questions continue on the topic of trust in leadership. Prior research on the topic of trust identifies three overarching qualities of a trusted leader: competence, integrity, and benevolence. Competence is the ability of the leader to fulfill his or her promises and obligations. Integrity is the leader following pre-determined values and

ethical standards. Benevolence is the leader demonstrating respect and sensitivity toward the partners. Many of your responses regarding characteristics of effective NSPPP leaders can be identified with one of these three qualities. Prior research also concludes that these three qualities change in importance relative to the culture of the organization, structure of the partnership, and goal being addressed.

14. For a major national security disaster or emergency (e.g., 9-11, Katrina), what percentage of importance would you attach to integrity, competence, and benevolence as they pertain to the NSPPP leader? Please place a percentage number (e.g., 24, 55, 73 etc.) in the text boxes below.

- Integrity
- Competence
- Benevolence

15. For a long-term NSPPP effort to address a potential national security crisis (e.g., national power grid vulnerabilities), what percentage of importance would you attach to integrity, competence, and benevolence as they pertain to the NSPPP leader?

- Integrity
- Competence
- Benevolence

One of the recurring themes in the Round 1 responses is that the leader of the failed NSPPP was the wrong type for the crisis. These responses go to the heart of selecting a leader with the appropriate leadership style. For the following questions, apply percentage weights to leadership style qualities extracted from your responses.

16. For a major national security disaster or emergency (e.g., 9-11, Katrina), what percentage weights would you attach to the following leadership style qualities? Please place a percentage number (e.g., 24, 55, 73 etc.) in the text boxes below.

- Passionate and Charismatic
- Visionary
- Good Communicator/Listener
- Moral Courage
- Selfless
- Decisive

17. For a long-term NSPPP effort to address a potential national security crisis (e.g., national power grid vulnerabilities), what percentage weights would you attach to the following

leadership style qualities? Please place a percentage number (e.g., 24, 55, 73 etc.) in the text boxes below.

- Passionate and Charismatic
- Visionary
- Good Communicator/Listener
- Moral Courage
- Selfless
- Decisive

18. A recurring theme in your responses is that the leader of a failed NSPPP failed to respect the value provided by the private sector partners. Also, a recurring theme from public sector NSPPP leaders is that the United States Government organizational culture and bureaucracy does not place rewards, incentives, or value on NSPPPs. With this context, is it possible for the NSPPP leader to be a career government employee and succeed? Should the leader come from the private sector? But if the leader is from the private sector, will the bureaucracy allow him/her to succeed? Thoughts?

According to research conducted by Carter (2008), NSPPPs have two primary purposes: information sharing and disaster preparedness and response. Regarding information sharing, in his National Strategy for Information Sharing and Safeguarding, President Barack Obama (2012) linked the importance of information sharing not only to create an effective NSPPP, but also bolster the security of the United States. He stated that the safety and security of the nation is directly linked to the degree of cooperation among the public and private sectors.

However, there was clear consensus in your responses that there is not a two-way flow of information sharing in NSPPPs. The following questions focus on the topic of information sharing.

19. From your responses, you identify the public sector's trend of classifying information as a critical barrier to information sharing. Indicate whether you agree or disagree with the following statements and solutions.

Disagree Neither Agree or Disagree Agree

- I believe that every member of the NSPPP should receive the appropriate security clearances to see the information.
- A third-party or quasi-governmental organization should act as the information clearing house to address and safeguard both public sector classification and private sector proprietary information.

- Do nothing. This is a systemic problem that cannot be rectified under the current bureaucratic culture.

20. There were very few comments identifying private sector barriers to information sharing. Are there legal, organizational, and cultural barriers that impede the movement of private sector sensitive information into the NSPPP?

21. There were numerous consensus findings from Round 1. However, woven between the consensus findings is a resolve that the public sector organizational culture and bureaucracy are not only an impediment to an effective NSPPP, but also these impediments cannot be overcome outside of another 9-11 type disaster. Is there any hope to change the organizational culture that a NSPPP resides? Will it take another attack? A change of political climate? What is in the realm of the possible regarding solving this morass?

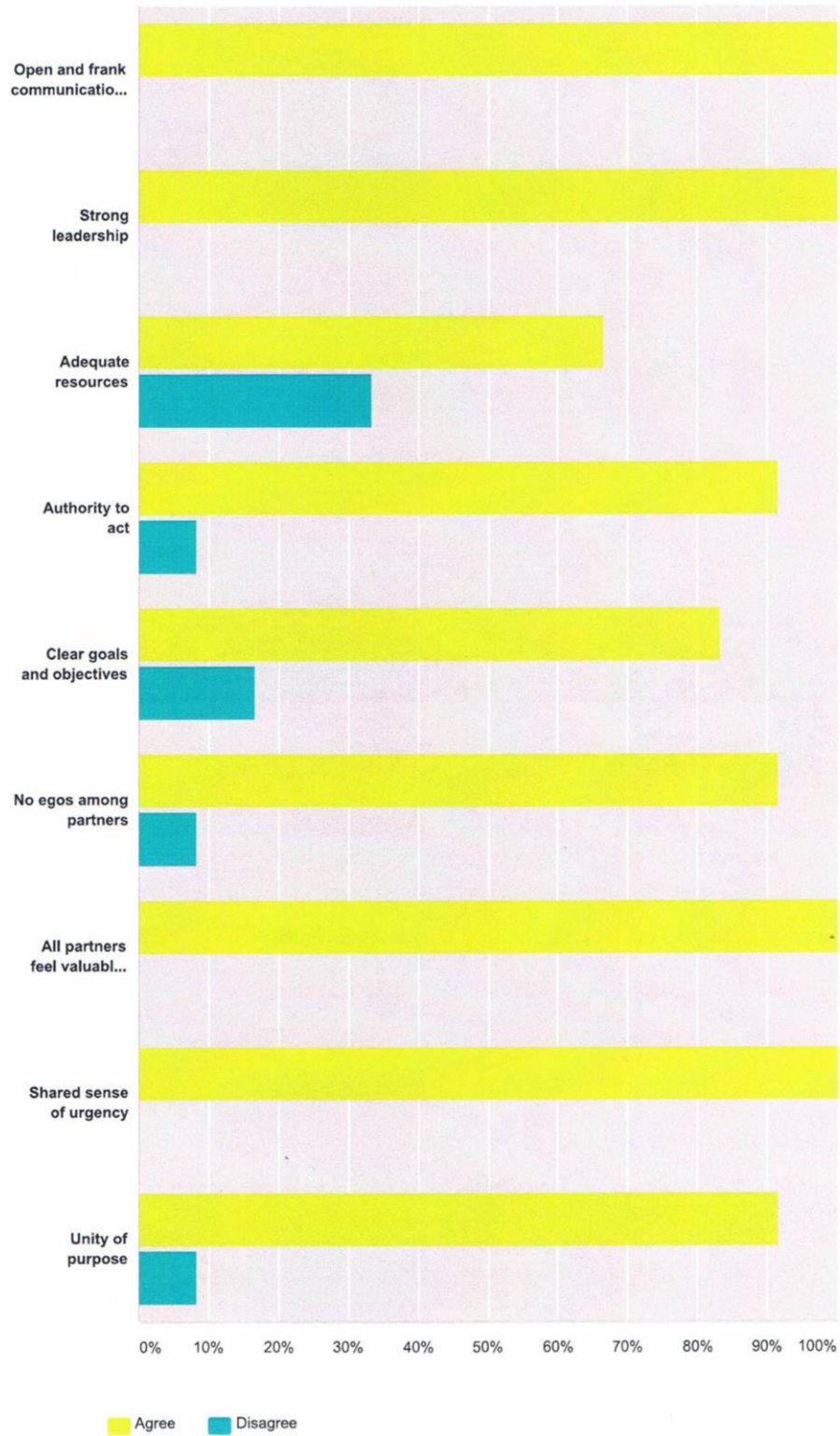
Appendix L

Round 2 Question 1

Q1 When asked for reasons why a National Security Public Sector-Private Sector Partnership (NSPPP) was effective, the following reasons were recurring. Do you agree or disagree that these criteria are necessary for an effective NSPPP?

Answered: 12 Skipped: 0

	Agree	Disagree	Total
Open and frank communication between partners	100.00% 12	0.00% 0	12
Strong leadership	100.00% 12	0.00% 0	12
Adequate resources	66.67% 8	33.33% 4	12
Authority to act	91.67% 11	8.33% 1	12
Clear goals and objectives	83.33% 10	16.67% 2	12
No egos among partners	91.67% 11	8.33% 1	12
All partners feel valuable to success of NSPPP	100.00% 12	0.00% 0	12
Shared sense of urgency	100.00% 12	0.00% 0	12
Unity of purpose	91.67% 11	8.33% 1	12



Appendix M

Round 2 Question 2

	Comm	Leader	Resource	Authority	G&O	Ego of P	Value	Urgency	Unity
DP	9	5	6	4	1	8	7	2	3
DP	5	1	3	2	4	8	9	7	6
DP	6	2	9	7	1	8	3	5	4
DP	4	1	5	3	6	8	7	2	9
DP	1	5	7	6	3	8	9	4	2
DP	4	1	5	3	2	9	6	7	8
DP	5	2	7	6	1	9	8	4	3
DP	5	1	6	3	2	9	8	7	4
DP		2	3		4	1			
DP	9	4	8	3	2	1	7	5	6
DP	4	1	8	6	5	7	3	9	2
DP	4	5	9	3	2	6	7	8	1

Statistics

		Communication	Leadership	Resources	Authority	Goals & Obj	Ego of Partners
N	Valid	11	12	12	11	12	12
	Missing	1	0	0	1	0	0
Median		5.0000	2.0000	6.5000	3.0000	2.0000	8.0000
Mode		4.00	1.00	3.00 ^a	3.00	2.00	8.00

Statistics

		Value Felt	Urgency	Unity
N	Valid	11	11	11
	Missing	1	1	1
Median		7.0000	5.0000	4.0000
Mode		7.00	7.00	2.00 ^a

a. Multiple modes exist. The smallest value is shown

Descriptives

			Statistic	Std. Error
Communication	Mean		5.0909	.69354
	95% Confidence Interval for Mean	Lower Bound	3.5456	
		Upper Bound	6.6362	
	5% Trimmed Mean		5.1010	
	Median		5.0000	
	Variance		5.291	
	Std. Deviation		2.30020	
	Minimum		1.00	
	Maximum		9.00	
	Range		8.00	
	Interquartile Range		2.00	
	Skewness		.468	.661
	Kurtosis		.768	1.279
Leadership	Mean		2.5455	.54545
	95% Confidence Interval for Mean	Lower Bound	1.3301	
		Upper Bound	3.7608	
	5% Trimmed Mean		2.4949	
	Median		2.0000	
	Variance		3.273	
	Std. Deviation		1.80907	
	Minimum		1.00	
	Maximum		5.00	
	Range		4.00	
	Interquartile Range		4.00	
	Skewness		.592	.661
	Kurtosis		-1.735	1.279
Resources	Mean		6.6364	.56040
	95% Confidence Interval for Mean	Lower Bound	5.3877	
		Upper Bound	7.8850	
	5% Trimmed Mean		6.7071	
	Median		7.0000	
	Variance		3.455	
	Std. Deviation		1.85864	
	Minimum		3.00	
	Maximum		9.00	
	Range		6.00	
	Interquartile Range		3.00	
	Skewness		-.491	.661
	Kurtosis		-.189	1.279

Descriptives

			Statistic	Std. Error
Authority	Mean		4.1818	.51906
	95% Confidence Interval for Mean	Lower Bound	3.0253	
		Upper Bound	5.3384	
	5% Trimmed Mean		4.1465	
	Median		3.0000	
	Variance		2.964	
	Std. Deviation		1.72152	
	Minimum		2.00	
	Maximum		7.00	
	Range		5.00	
	Interquartile Range		3.00	
	Skewness		.521	.661
	Kurtosis		-1.489	1.279
	Goals & Obj	Mean		2.6364
95% Confidence Interval for Mean		Lower Bound	1.6013	
		Upper Bound	3.7714	
5% Trimmed Mean			2.5404	
Median			2.0000	
Variance			2.855	
Std. Deviation			1.68954	
Minimum			1.00	
Maximum			6.00	
Range			5.00	
Interquartile Range			3.00	
Skewness			1.005	.661
Kurtosis			-.007	1.279
Ego of Partners		Mean		7.3636
	95% Confidence Interval for Mean	Lower Bound	5.8237	
		Upper Bound	8.9036	
	5% Trimmed Mean		7.6263	
	Median		8.0000	
	Variance		5.255	
	Std. Deviation		2.29228	
	Minimum		1.00	
	Maximum		9.00	
	Range		8.00	
	Interquartile Range		2.00	
	Skewness		-2.495	.661
	Kurtosis		6.894	1.279

Descriptives

		Statistic	Std. Error	
Value Felt	Mean	6.7273	.61925	
	95% Confidence Interval for Mean	Lower Bound	5.3475	
		Upper Bound	8.1070	
	5% Trimmed Mean	6.8081		
	Median	7.0000		
	Variance	4.218		
	Std. Deviation	2.05382		
	Minimum	3.00		
	Maximum	9.00		
	Range	6.00		
	Interquartile Range	2.00		
	Skewness	-1.076	.661	
	Kurtosis	.418	1.279	
	Urgency	Mean	5.4545	.70535
95% Confidence Interval for Mean		Lower Bound	3.8829	
		Upper Bound	7.0262	
5% Trimmed Mean		5.4495		
Median		5.0000		
Variance		5.473		
Std. Deviation		2.33939		
Minimum		2.00		
Maximum		9.00		
Range		7.00		
Interquartile Range		3.00		
Skewness		-.159	.661	
Kurtosis		-1.039	1.279	
Unity		Mean	4.3636	.77779
	95% Confidence Interval for Mean	Lower Bound	2.6306	
		Upper Bound	6.0967	
	5% Trimmed Mean	4.2929		
	Median	4.0000		
	Variance	6.655		
	Std. Deviation	2.57964		
	Minimum	1.00		
	Maximum	9.00		
	Range	8.00		
	Interquartile Range	4.00		
	Skewness	.619	.661	
	Kurtosis	-.653	1.279	

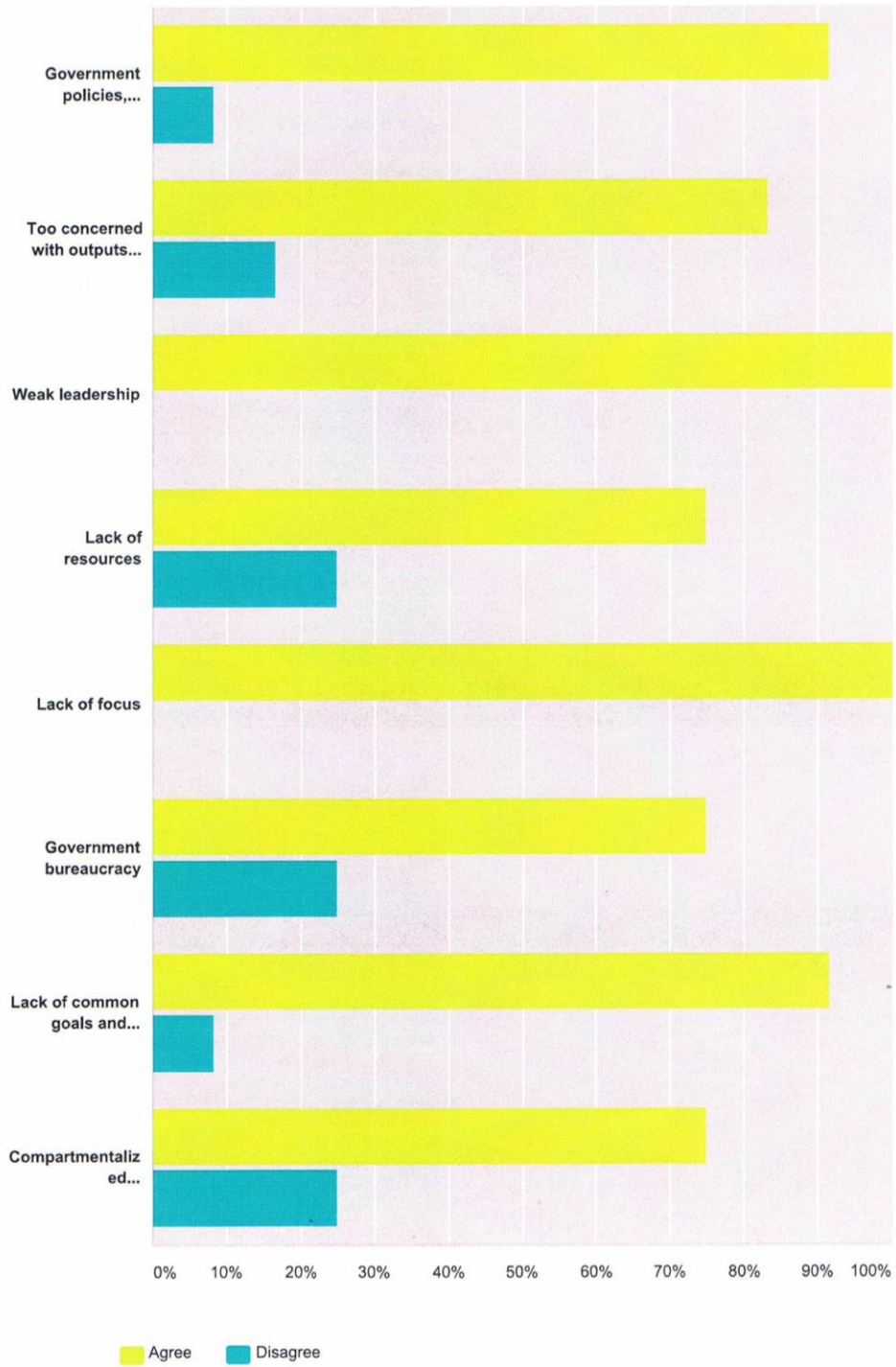
Appendix N

Round 2 Question 3

Q3 When asked for reasons why a NSPPP fails, the following statements were recurring. Do you agree or disagree that these statements contribute to a failed NSPPP?

Answered: 12 Skipped: 0

	Agree	Disagree	Total
Government policies, regulations, and statutes	91.67% 11	8.33% 1	12
Too concerned with outputs (e.g., meetings) versus outcomes (e.g., NSPPP success)	83.33% 10	16.67% 2	12
Weak leadership	100.00% 12	0.00% 0	12
Lack of resources	75.00% 9	25.00% 3	12
Lack of focus	100.00% 12	0.00% 0	12
Government bureaucracy	75.00% 9	25.00% 3	12
Lack of common goals and objectives	91.67% 11	8.33% 1	12
Compartmentalized communication	75.00% 9	25.00% 3	12



Appendix O

Round 2 Question 4

	Gov Policy	Outputs	Leader	Resources	Focus	Bureau	G&O	Comm
DP	6	2	4	5	3	7	1	8
DP	5	7	2	3	4	1	6	8
DP	7	5	4	8	1	2	3	6
DP	3	6	1	8	4	2	7	5
DP	4	8	3	6	5	7	2	1
DP	3	4	1	5	6	7	2	8
DP	6	7	3	5	2	4	1	8
DP	4	8	1	6	3	5	2	7
DP	4	8	2	6	5	3	1	7
DP	3	7	1	8	4	2	5	6
DP	6	2	3	8	4	5	1	7

Statistics

		Gov Policies	Outputs	Leadership	Resources	Focus	Bureaucracy
N	Valid	11	11	11	11	11	11
	Missing	0	0	0	0	0	0
Median		4.00	7.00	2.00	6.00	4.00	4.00
Mode		3 ^a	7 ^a	1	8	4	2 ^a

Statistics

		Goals & Obj	Communication
N	Valid	11	11
	Missing	0	0
Median		2.00	7.00
Mode		1	8

a. Multiple modes exist. The smallest value is shown

Descriptives

		Statistic	Std. Error	
Gov Policies	Mean	4.64	.432	
	95% Confidence Interval for Mean	Lower Bound	3.67	
		Upper Bound	5.60	
	5% Trimmed Mean	4.60		
	Median	4.00		
	Variance	2.055		
	Std. Deviation	1.433		
	Minimum	3		
	Maximum	7		
	Range	4		
	Interquartile Range	3		
	Skewness	.288	.661	
	Kurtosis	-1.404	1.279	
	Outputs	Mean	5.82	.685
95% Confidence Interval for Mean		Lower Bound	4.29	
		Upper Bound	7.34	
5% Trimmed Mean		5.91		
Median		7.00		
Variance		5.164		
Std. Deviation		2.272		
Minimum		2		
Maximum		8		
Range		6		
Interquartile Range		4		
Skewness		-.852	.661	
Kurtosis		-.658	1.279	
Leadership		Mean	2.27	.359
	95% Confidence Interval for Mean	Lower Bound	1.47	
		Upper Bound	3.07	
	5% Trimmed Mean	2.25		
	Median	2.00		
	Variance	1.418		
	Std. Deviation	1.191		
	Minimum	1		
	Maximum	4		
	Range	3		
	Interquartile Range	2		
	Skewness	.230	.661	
	Kurtosis	-1.510	1.279	

Descriptives

			Statistic	Std. Error
Resources	Mean		6.18	.501
	95% Confidence Interval for Mean	Lower Bound	5.06	
		Upper Bound	7.30	
	5% Trimmed Mean		6.26	
	Median		6.00	
	Variance		2.764	
	Std. Deviation		1.662	
	Minimum		3	
	Maximum		8	
	Range		5	
	Interquartile Range		3	
	Skewness		-.350	.661
	Kurtosis		-.517	1.279
	Focus	Mean		3.73
95% Confidence Interval for Mean		Lower Bound	2.77	
		Upper Bound	4.68	
5% Trimmed Mean			3.75	
Median			4.00	
Variance			2.018	
Std. Deviation			1.421	
Minimum			1	
Maximum			6	
Range			5	
Interquartile Range			2	
Skewness			-.438	.661
Kurtosis			.187	1.279
Bureaucracy		Mean		4.09
	95% Confidence Interval for Mean	Lower Bound	2.58	
		Upper Bound	5.61	
	5% Trimmed Mean		4.10	
	Median		4.00	
	Variance		5.091	
	Std. Deviation		2.256	
	Minimum		1	
	Maximum		7	
	Range		6	
	Interquartile Range		5	
	Skewness		.182	.661
	Kurtosis		-1.576	1.279

Descriptives

		Statistic	Std. Error	
Goals & Obj	Mean	2.82	.658	
	95% Confidence Interval for Mean	Lower Bound	1.35	
		Upper Bound	4.28	
	5% Trimmed Mean	2.69		
	Median	2.00		
	Variance	4.764		
	Std. Deviation	2.183		
	Minimum	1		
	Maximum	7		
	Range	6		
	Interquartile Range	4		
	Skewness	1.059	.661	
	Kurtosis	-.321	1.279	
	Communication	Mean	6.45	.623
95% Confidence Interval for Mean		Lower Bound	5.07	
		Upper Bound	7.84	
5% Trimmed Mean		6.67		
Median		7.00		
Variance		4.273		
Std. Deviation		2.067		
Minimum		1		
Maximum		8		
Range		7		
Interquartile Range		2		
Skewness		-2.080	.661	
Kurtosis		5.000	1.279	

Appendix P

Round 2 Question 6

Strategic Goal 1
Information sharing
Situational awareness
Clearly define the roles and responsibilities of the private sector
Identify a joint framework
address safety/security of populace
Ongoing threat identification and assessment.
Mitigate loss
Strategic Goal 2
Resource-to-problem resolution mapping
Communication
Enable the removal of Red Tape for private sector participation.
Identify a communications plan
assess/alleviate physical damage
Reduce the probability that the threat will come to fruition, where possible.
Provide resources
Strategic Goal 3
Resilience and mitigation
On-call private sector personnel augmentation in support of critical infrastructure demands and technology gaps.
Involve the private sector in preparatory planning
Identify the connections to the private sector
address hardships imposed on local population; mitigate as possible
Implement steps to reduce the magnitude of damage and contain the spread of damage in the event a disaster happens.
Align the goals
Strategic Goal 4
Governance
Alert Notification
Develop joint coordination plans and mechanisms for multifaceted events
Work the problem in advance, establish ROE
communicate with populace for multiple (reassurances) purposes
Framework for effective communications and coordination between parties before, during, and after a crisis.

Fix the problem
Strategic Goal 5
Lessons Learned and resolution bounce-forward (that is, leverage insights into the event in order to improve infrastructure and processes moving forward).
National private sector asset and team database (structural engineers / mechanical engineers, cybersecurity SME's, etc)
Fix all non-disclosure issues
Lead

Appendix Q

Round 2 Question 7

	No Change	Method Change	Objective Change	Both Change
DP	1	2	2	5
DP	2	4	5	2
DP	2	2	5	3
DP	1	1	4	5
DP	2	2	2	5
DP	4	4	4	2
DP	2	4	4	4
DP	1	4	4	5
DP			1	
DP	2	3	3	4
DP	1	2	4	4

Statistics

	No change	Methods change	Obj change	G&O change
N Valid	10	10	11	10
Missing	1	1	0	1
Median	2.0000	2.5000	4.0000	4.0000
Mode	2.00	2.00 ^a	4.00	5.00

Descriptives

		Statistic	Std. Error	
No change	Mean	1.8000	.29059	
	95% Confidence Interval for Mean	Lower Bound	1.1426	
		Upper Bound	2.4574	
	5% Trimmed Mean	1.7222		
	Median	2.0000		
	Variance	.844		
	Std. Deviation	.91894		
	Minimum	1.00		
	Maximum	4.00		
	Range	3.00		
	Interquartile Range	1.00		
	Skewness	1.546	.687	
	Kurtosis	3.334	1.334	

Methods change	Mean		2.8000	.35901
	95% Confidence Interval for Mean	Lower Bound	1.9879	
		Upper Bound	3.6121	
	5% Trimmed Mean		2.8333	
	Median		2.5000	
	Variance		1.289	
	Std. Deviation		1.13529	
	Minimum		1.00	
	Maximum		4.00	
	Range		3.00	
	Interquartile Range		2.00	
	Skewness		-.091	.687
	Kurtosis		-1.655	1.334
	Obj change	Mean		3.7000
95% Confidence Interval for Mean		Lower Bound	2.9422	
		Upper Bound	4.4578	
5% Trimmed Mean			3.7222	
Median			4.0000	
Variance			1.122	
Std. Deviation			1.05935	
Minimum			2.00	
Maximum			5.00	
Range			3.00	
Interquartile Range			1.50	
Skewness			-.659	.687
Kurtosis			-.406	1.334
			Statistic	Std. Error
G&O change	Mean		3.9000	.37859
	95% Confidence Interval for Mean	Lower Bound	3.0436	
		Upper Bound	4.7564	
	5% Trimmed Mean		3.9444	
	Median		4.0000	
	Variance		1.433	
	Std. Deviation		1.19722	
	Minimum		2.00	
	Maximum		5.00	
	Range		3.00	
	Interquartile Range		2.25	
	Skewness		-.738	.687
	Kurtosis		-.878	1.334

Appendix R

Round 2 Question 8

	Imminent Threat	Attack Occurred	Time Transpired	Potential Threat
DP	2	1	3	3
DP	2	2	3	3
DP	2	1	3	3
DP	2	1	2	3
DP	1	1	2	3
DP	1	1	2	2
DP	1	1	2	3
DP	3	2	2	1
DP	2	1	2	2
DP	3	1	2	3

1 = Public sector will act as an enhancer and most barriers will be circumvented

2 = Public sector will act as an enhancer as long as all established barriers are followed

3 = Public sector's strict adherence to established barriers act as a detractor to an effective

NSPPP

Statistics

		Imminent Threat	Attack Occurred	Time Transpired	Potential Threat
N	Valid	10	10	10	10
	Missing	0	0	0	0
Median		2.0000	1.0000	2.0000	3.0000
Mode		2.00	1.00	2.00	3.00

Descriptives

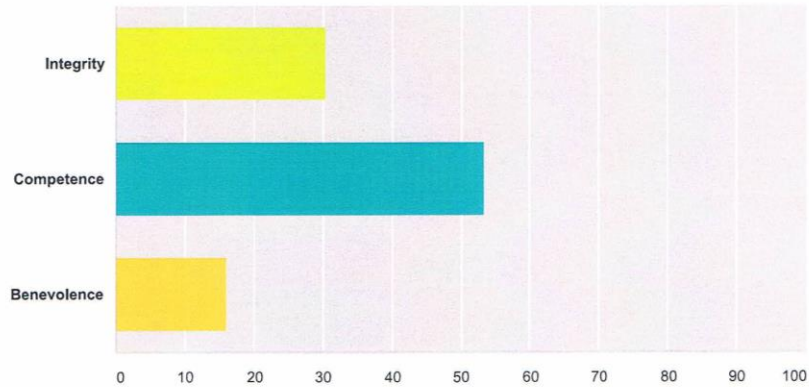
		Statistic	Std. Error	
Imminent Threat	Mean	1.9000	.23333	
	95% Confidence Interval for Mean	Lower Bound	1.3722	
		Upper Bound	2.4278	
	5% Trimmed Mean	1.8889		
	Median	2.0000		
	Variance	.544		
	Std. Deviation	.73786		
	Minimum	1.00		
	Maximum	3.00		
	Range	2.00		
	Interquartile Range	1.25		
	Skewness	.166	.687	
	Kurtosis	-.734	1.334	
Attack Occurred	Mean	1.2000	.13333	
	95% Confidence Interval for Mean	Lower Bound	.8984	
		Upper Bound	1.5016	
	5% Trimmed Mean	1.1667		
	Median	1.0000		
	Variance	.178		
	Std. Deviation	.42164		
	Minimum	1.00		
	Maximum	2.00		
	Range	1.00		
	Interquartile Range	.25		
	Skewness	1.779	.687	
	Kurtosis	1.406	1.334	
Time Transpired	Mean	2.3000	.15275	
	95% Confidence Interval for Mean	Lower Bound	1.9544	
		Upper Bound	2.6456	
	5% Trimmed Mean	2.2778		
Median	2.0000			
Potential Threat	Variance	2.33		
	Std. Deviation	.48305		
	Minimum	2.00		
	Maximum	3.00		
	Range	1.00		
	Interquartile Range	1.00		
	Skewness	1.035	.687	
	Kurtosis	-1.224	1.334	
	Mean	2.6000	.22111	
		95% Confidence Interval for Mean	Lower Bound	2.0998
	Upper Bound		3.1002	
	5% Trimmed Mean	2.6667		
	Median	3.0000		
	Variance	.489		
	Std. Deviation	.6921		
	Minimum	1.00		
	Maximum	3.00		
	Range	2.00		
	Interquartile Range	1.00		
Skewness	-1.658	.687		
Kurtosis	2.046	1.334		

Appendix S

Round 2 Question 14

Q14 For a major national security disaster or emergency (e.g., 9-11, Katrina), what percentage of importance would you attach to integrity, competence, and benevolence as they pertain to the NSPPP leader? Please place a percentage number (e.g., 24, 55, 73 etc.) in the text boxes below.

Answered: 10 Skipped: 2



Answer Choices	Average Number	Total Number	Responses
Integrity	31	305	10
Competence	54	535	10
Benevolence	16	160	10
Total Respondents: 10			

	Integrity	Competence	Benevolence
DP	30	60	10
DP	20	50	30
DP	25	50	25
DP	30	50	20
DP	25	50	25
DP	30	70	0
DP	20	70	10
DP	50	50	0
DP	30	40	30
DP	45	45	10

Statistics

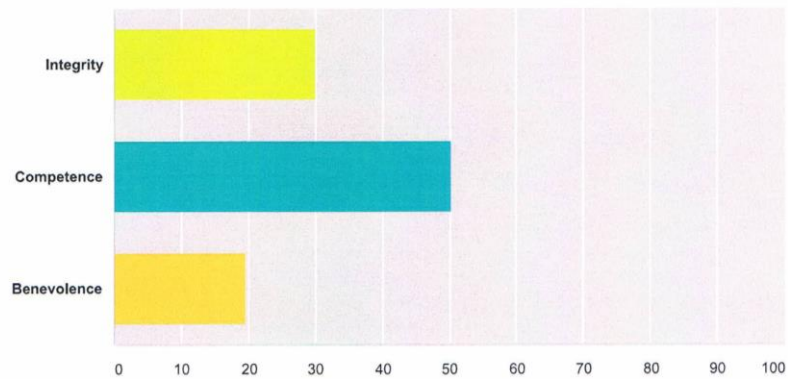
		Integrity	Competence	Benevolence
N	Valid	10	10	10
	Missing	0	0	0
Mean		30.5000	53.5000	16.0000
Median		30.0000	50.0000	15.0000
Mode		30.00	50.00	10.00

Appendix T

Round 2 Question 15

Q15 For a long-term NSPPP effort to address a potential national security crisis (e.g., national power grid vulnerabilities), what percentage of importance would you attach to integrity, competence, and benevolence as they pertain to the NSPPP leader?

Answered: 10 Skipped: 2



Answer Choices	Average Number	Total Number	Responses
Integrity	30	301	10
Competence	50	503	10
Benevolence	20	196	10
Total Respondents: 10			

	Integrity	Competence	Benevolence
DP	30	60	10
DP	30	40	30
DP	28	70	2
DP	25	50	25
DP	40	50	10
DP	25	50	25
DP	30	50	20
DP	33	33	34
DP	30	40	30
DP	30	60	10

Statistics

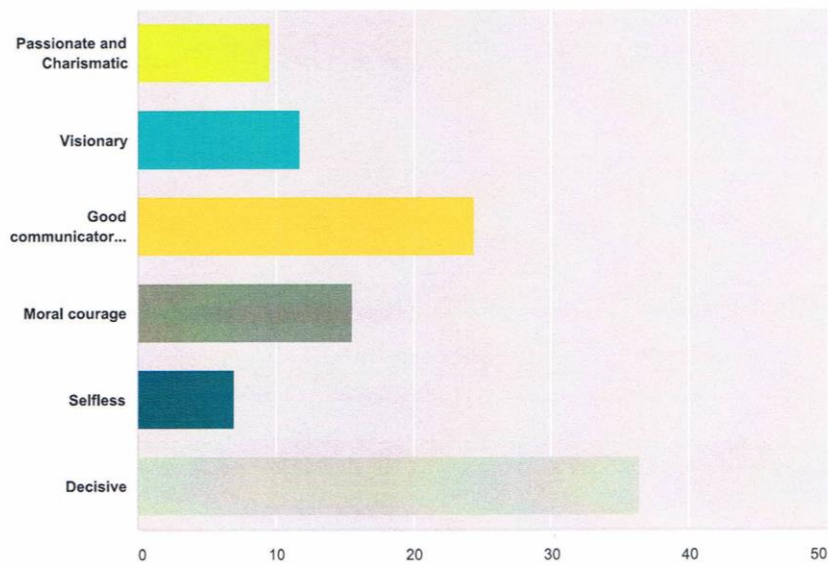
		Integrity	Competence	Benevolence
N	Valid	10	10	10
	Missing	0	0	0
Mean		30.1000	50.3000	19.6000
Median		30.0000	50.0000	22.5000
Mode		30.00	50.00	10.00

Appendix U

Round 2 Question 16

Q16 For a major national security disaster or emergency (e.g., 9-11, Katrina), what percentage weights would you attach to the following leadership style qualities? Please place a percentage number (e.g., 24, 55, 73 etc.) in the text boxes below.

Answered: 10 Skipped: 2



Answer Choices	Average Number	Total Number	Responses
Passionate and Charismatic	10	86	9
Visionary	12	94	8
Good communicator/listener	24	244	10
Moral courage	16	156	10
Selfless	7	56	8
Decisive	36	364	10
Total Respondents: 10			

	Passion	Visionary	Comm/List	Moral Cor	Selfless	Decisive
DP	0	0	20	20	0	60
DP	5	5	35	15	5	35
DP	6	24	24	16	6	24
DP	5	5	30	10	10	40
DP	5	10	40	20	5	20
DP	5	5	10	20	20	40
DP	0	15	15	15	0	55
DP	30	20	10	0	0	40
DP	10	10	30	20	10	20
DP	20	0	30	20	0	30

Statistics

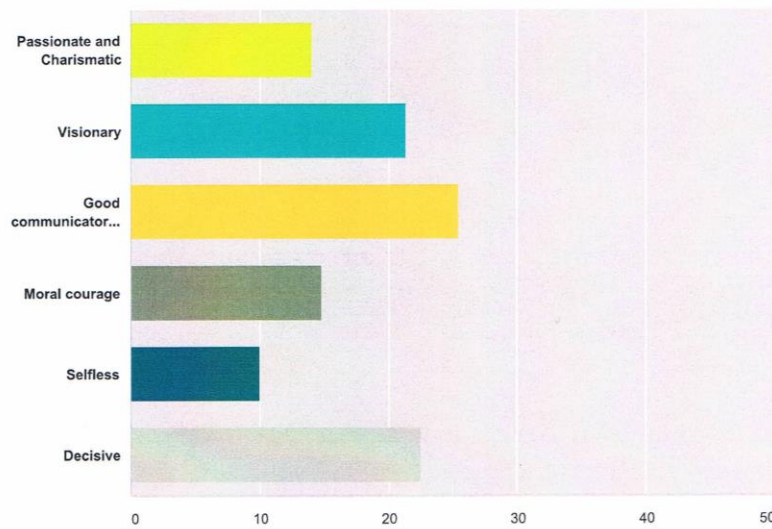
		Passion	Visionary	Communicator	Moral Courage	Selfless	Decisive
N	Valid	10	10	10	10	10	10
	Missing	0	0	0	0	0	0
Mean		8.6000	9.4000	24.4000	15.6000	5.6000	36.4000
Median		5.0000	7.5000	27.0000	18.0000	5.0000	37.5000
Mode		5.00	5.00	30.00	20.00	.00	40.00

Appendix V

Round 2 Question 17

Q17 For a long-term NSPPP effort to address a potential national security crisis (e.g., national power grid vulnerabilities), what percentage weights would you attach to the following leadership style qualities? Please place a percentage number (e.g., 24, 55, 73 etc.) in the text boxes below.

Answered: 10 Skipped: 2



Answer Choices	Average Number	Total Number	Responses
Passionate and Charismatic	14	113	8
Visionary	21	214	10
Good communicator/listener	26	255	10
Moral courage	15	133	9
Selfless	10	60	6
Decisive	23	225	10
Total Respondents: 10			

	Passion	Visionary	Comm/List	Moral Cor	Selfless	Decisive
DP	0	30	30	10	0	30
DP	10	20	20	25	10	15
DP	30	30	20	0	0	20
DP	20	25	15	10	0	30
DP	5	15	20	20	20	20
DP	10	20	40	5	5	20
DP	10	15	40	10	5	20
DP	18	24	15	13	15	15
DP	5	5	35	15	5	35
DP	0	10	30	30	0	30

Statistics

		Passion	Visionary	Communicator	Moral Courage	Selfless	Decisive
N	Valid	10	10	10	10	10	10
	Missing	0	0	0	0	0	0
Mean		10.8000	19.4000	26.5000	13.8000	6.0000	23.5000
Median		10.0000	20.0000	25.0000	11.5000	5.0000	20.0000
Mode		10.00	15.00 ^a	20.00	10.00	.00	20.00

a. Multiple modes exist. The smallest value is shown

Appendix W

Round 2 Question 18

Q18 A recurring theme in your responses is that the leader of a failed NSPPP failed to respect the value provided by the private sector partners. Also, a recurring theme from public sector NSPPP leaders is that the United States Government organizational culture and bureaucracy does not place rewards, incentives, or value on NSPPPs. With this context, is it possible for the NSPPP leader to be a career government employee and succeed? Should the leader come from the private sector? But if the leader is from the private sector, will the bureaucracy allow him/her to succeed? Thoughts?

Answered: 10 Skipped: 2

#	Responses
1	You can, and should, have co-leads to symbolically show the equal stake in the partnership. I never saw a partnership between two companies with a "lead". Why have one between public and private? The respective leads understand their cultures better, are respected by their respective tribes better, and will go back to their respective tribes better informed by the relationship. The fact you are stating that USG culture and bureaucracy does not see the value of NSPPS indicates that they were established and run by the wrong people for the wrong purposes. Not that there is some intrinsic nature of Govt that precludes successful partnerships.
2	Leader should probably come from the public sector and changes should be made. Perhaps there could be co- leaders -- one from each sector.
3	Yes, it is possible for the NSPPP leader to be a career government employee and succeed. Likewise, it is possible for a leader from the private sector to succeed. Like all endeavors, the key is to get the right leader for the occasion.
4	The NSPPP leaders must come from the SES ranks of federal service. If the leader is from the private sector the bureaucracy will NOT let him/her succeed.

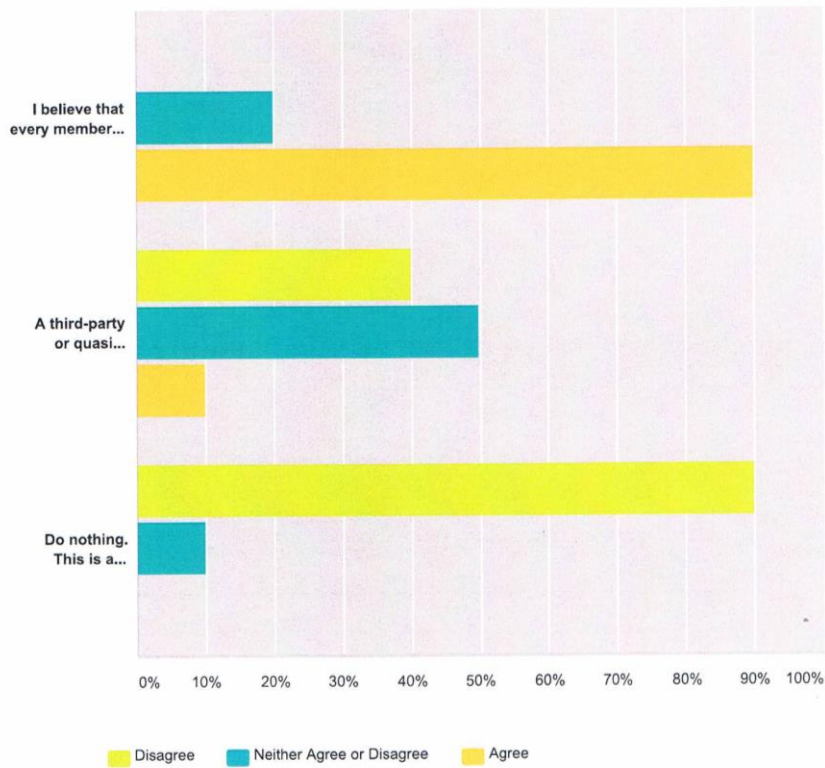
5	The leader should be in the government, preferably at the Cabinet level for a significant activity, but with extensive private sector experience.
6	It can be done, but the cultures are very different, you have to have someone with private experience before their public career.
7	My sense is that it depends on the leader. Someone like Bryan Koon, for example, who has both private and public experience understands both sides and would be ideally suited to lead an NSPPP. Someone solely from one sector or another will have struggle, although I suspect that someone with a governmental background who understands the (limitations of) the bureaucracy would likely have a better likelihood of success, but they would have to make significant overtures to the private sector to demonstrate that they have a balanced view.
8	yes, I believe the leader could be a career government employee and succeed. If that person possesses the requisite skills, at the appropriate level, they can certainly succeed. similarly, I believe the leader could also come from the private sector, but the transition will be more difficult if the person does not have significant experience with the federal and state governments.
9	It is possible for a NSPPP leader to be a career government employee if they are open minded and approach the NSPPP with respect. I know career government employees have a tendency to be insular. But if they recognize that there are different perspectives, and if they have the humility to admit that there's alot they don't know, and if they have respect for the other participants, then they can be very successful in leading a NSPPP.
10	Can be from either private or public (but not career bureaucrat),but needs to be responsible to executive branch

Appendix X

Round 2 Question 19

Q19 From your responses, you identify the public sector's trend of classifying information as a critical barrier to information sharing. Indicate whether you agree or disagree with the following statements and solutions.

Answered: 10 Skipped: 2



	Disagree	Neither Agree or Disagree	Agree	Total Respondents
I believe that every member of the NSPPP should receive the appropriate security clearances to see the information.	0.00% 0	20.00% 2	90.00% 9	10
A third-party or quasi governmental organization should act as the information clearing house to address and safeguard both public sector classification and private sector proprietary information.	40.00% 4	50.00% 5	10.00% 1	10
Do nothing. This is a systemic problem that cannot be rectified under the current bureaucratic culture.	90.00% 9	10.00% 1	0.00% 0	10

Appendix Y

Round 2 Question 21

Q21 There were numerous consensus findings from Round 1. However, woven between the consensus findings is a resolve that the public sector organizational culture and bureaucracy are not only an impediment to an effective NSPPP, but also these impediments cannot be overcome outside of another 9-11 type disaster. Is there any hope to change the organizational culture that a NSPPP resides? Will it take another attack? A change of political climate? What is in the realm of the possible regarding solving this morass?

Answered: 10 Skipped: 2

#	Responses
1	First, the problem has to be perceived as real and intractable by all parties concerned. The gain has to be shared as well as the risk. There is a cost in doing business with the govt and that has to be accommodated in the relationship. Time is far more valuable to the private sector with tight decision cycles determining relative worth. This simply does not exist in the public sector. As a result, the only time the Govt can move quickly is during a disaster. Hence the perception that these things work only around disasters. Agree upon problems, goals, objectives and attempts to move culture to a norm (meaning Govt needs to fix their myopic prism on time and efficiencies) is the first step to a successful NSPPP.
2	I would hope that change could be made without another disaster. Cyber security is making the government realize it must have a better relationship with the government. I'm still hopeful we can create these partnerships before a disaster.
3	It can be solved but will require dedicated, selfless, men and women who have the moral courage to put the welfare of the Country and its People ahead of their own concern for well being and reputation.
4	Effective two-way communication is very important for an effective NSPPP to operate. More so "initially" from public to private. There must be value added on both sides of the equation.
5	Updated the Stafford Act to recognize the private sector role would be a good start. We also need to change the political climate to recognize the role and capabilities of government should be limited.

6	A change in political climate is needed, the government is growing larger, and more powerful, they are not willing to see themselves as anything other than in charge of the private sector. This has been demonstrated in many senior meetings to me.
7	it is absolutely possible, and reliant to a great degree on the personalities, competence, communication skills and unity of purpose set upon the NSPPP. Egos aside, frequent meetings which allow participating entities to actually become familiar with the key decision makers are essential. Reaching out at times other than in a crisis has tremendous benefit, and allows people to become familiar with the style and manner of decision makers. this can defuse so many issues otherwise encountered.
8	I'm afraid I don't believe that short of a crisis that is of a scale larger than 9/11, there will not be sufficient incentive to drive the sectors together to cooperate.
9	We desperately need a change in political climate, and a revival of the ability to negotiate and find middle ground. Unfortunately, our politicians are increasingly chasing the extremes and entrenching rather than negotiating. This culture is permeating all aspects of government and making it nearly impossible to achieve the shared clarity of purpose needed for an effective NSPPP. We in the US are really good at responding to crises, and I'm afraid it will take another 9/11 for us to remember how to get things done.
10	Will require either another 911 or new President

Appendix Z

Round 3 Questions

Prioritizing Key Result Indicators

Use this worst case scenario for the following question: ISIS was successful in launching coordinated terror attacks on the United States homeland. Anthrax was used to contaminate the main FedEx Memphis World Hub in Memphis, TN; a radiological dispersal device was detonated at Long Beach terminal; and a train with chlorine gas was derailed and detonated in downtown Kansas City. Thousands have been infected and killed. Numerous infrastructures are disrupted.

The United States economy is in peril. A National Security Public Sector-Private Sector Partnership is formed to address this crisis.

1. You are responsible for the formation of the NSPPP for the national security crisis above. What percentage of importance would you place on each key result indicator? Please place a percentage number in each box (e.g., 23, 57, 13, etc.).

- The NSPPP must have clear goals and objectives
- Government policies, statutes, and regulations and private sector privacy and legal concerns acting as barriers to an effective NSPPP must be addressed
- The negative effects of the United States bureaucratic culture must be addressed
- The NSPPP must have adequate funding
- The NSPPP leader or oversight organization must have the authorities necessary to act rapidly and decisively

2. What is your logic in placing the percentage weights to the statements above?

Use this scenario for the following question: The United States' Intelligence Community has uncovered a Russian military program targeting the United States' national command and control capabilities. It is rumored that the program has been operating unchecked for a minimum of 15 years. Critical to the success of the program was the systematic infiltration and sabotage of the telecommunications supply chain of microchips, critical hardware components, and operating system software. A National Security Public Sector-Private Sector Partnership is formed to research the magnitude of the problem, create a plan to mitigate the compromise, and establish new industry and government protocols to deter a repeat attempt at this type of attack. It is expected that this will be a NSPPP that will exist for more than 4 years.

3. You are responsible for the formation of the NSPPP for the national security crisis above. What percentage of importance would you place on each key result indicator? Please place a percentage number in each box (e.g., 23, 57, 13, etc.).

- The NSPPP must have clear goals and objectives
 - Government policies, statutes, and regulations and private sector privacy and legal concerns acting as barriers to an effective NSPPP must be addressed
 - The negative effects of the United States bureaucratic culture must be addressed
 - The NSPPP must have adequate funding
 - The NSPPP leader or oversight organization must have the authorities necessary to act rapidly and decisively
4. What is your logic in placing the percentage weights to the statements above?

Prioritizing Key Performance Indicators

Use this worst case scenario for the following question: ISIS was successful in a launching coordinated terror attacks on the United States homeland. Anthrax was used to contaminate the main FedEx Memphis World Hub in Memphis, TN; radiological dispersal device was detonated at Long Beach terminal; and a train with chlorine gas was derailed and detonated in downtown Kansas City. Thousands have been infected and killed. Numerous infrastructures are disrupted. The United States economy is in peril. A National Security Public Sector-Private Sector Partnership is formed to address this crisis.

5. You are responsible for the formation of the NSPPP for the national security crisis above. What percentage of importance would you place on each key performance indicator? Please place a percentage number in each box (e.g., 23, 57, 13, etc.).

- The NSPPP must have strong and competent leadership
- There must be open information sharing and transparency
- The NSPPP members must have a unity of purpose
- The NSPPP members must have a sense of urgency
- There must be open and unrestricted communication between NSPPP partners

- Each NSPPP partner must understand their value to the overarching effort

6. What is your logic in placing the percentage weights to the statements above?

Use this scenario for the following question: The United States' Intelligence Community has uncovered a Russian military program targeting the United States' national command and control capabilities. It is rumored that the program has been operating unchecked for a minimum of 15 years. Critical to the success of the program was the systematic infiltration and sabotage of the telecommunications supply chain of microchips, critical hardware components, and operating system software. A National Security Public Sector-Private Sector Partnership is formed to research the magnitude of the problem, create a plan to mitigate the compromise, and establish new industry and government protocols to deter a repeat attempt at this type of attack. It is expected that this will be a NSPPP that will exist for more than 4 years.

7. You are responsible for the formation of the NSPPP for the national security crisis above. What percentage of importance would you place on each key performance indicator? Please place a percentage number in each box (e.g., 23, 57, 13, etc.).

- The NSPPP must have strong and competent leadership
- There must be open information sharing and transparency
- The NSPPP members must have a unity of purpose
- The NSPPP members must have a sense of urgency
- There must be open and unrestricted communication between NSPPP partners
- Each NSPPP partner must understand their value to the overarching effort

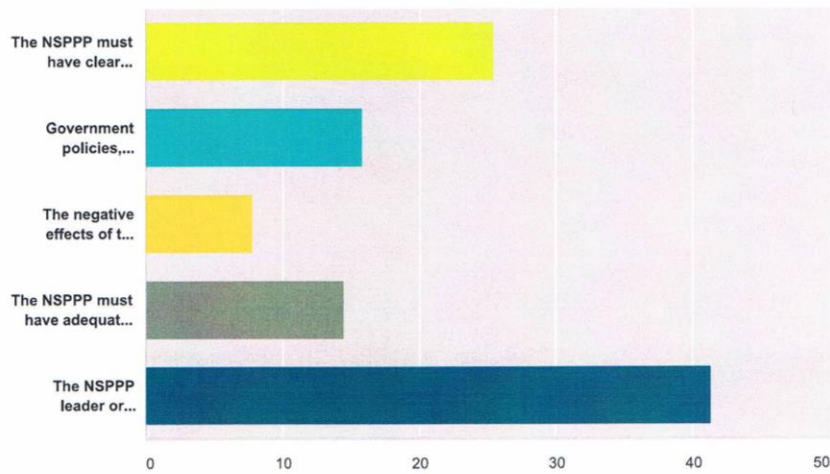
8. What is your logic in placing the percentage weights to the statements above?

Appendix AA

Round 3 Question 1

Q1 You are responsible for the formation of the NSPPP for the national security crisis above. What percentage of importance would you place on each key result indicator? Please place a percentage number in each box (e.g., 23, 57, 13, etc.).

Answered: 11 Skipped: 0



Answer Choices	Average Number	Total Number	Responses
The NSPPP must have clear goals and objectives	26	255	10
Government policies, statutes, and regulations and private sector privacy and legal concerns acting as barriers to an effective NSPPP must be addressed	16	175	11
The negative effects of the United States bureaucratic culture must be addressed	8	70	9
The NSPPP must have adequate funding	15	145	10
The NSPPP leader or oversight organization must have the authorities necessary to act rapidly and decisively	41	455	11
Total Respondents: 11			

	G&O	Barriers Addressed	Bureaucracy	Funding	Authorities
DP	25	25	0	10	40
DP	35	10	10	15	30
DP	5	10	10	25	50
DP	10	5	5	20	60
DP	0	10	0	0	90
DP	60	20	5	5	10
DP	25	15	10	25	25
DP	15	30	5	0	50
DP	20	30	5	20	25
DP	20	10	15	20	35
DP	40	10	5	5	40

Statistics

	Goals & Obj	Barriers Addressed	Bureaucracy	Funding	Authorities
N Valid	11	11	11	11	11
Missing	0	0	0	0	0
Mean	23.1818	15.9091	6.3636	13.1818	41.3636
Median	20.0000	10.0000	5.0000	15.0000	40.0000

			Statistic	Std. Error
Goals & Obj	Mean		23.1818	5.14661
	95% Confidence Interval for Mean	Lower Bound	11.7145	
		Upper Bound	34.6492	
	5% Trimmed Mean		22.4242	
	Median		20.0000	
	Variance		291.364	
	Std. Deviation		17.06938	
	Minimum		.00	
	Maximum		60.00	
	Range		60.00	
	Interquartile Range		25.00	
	Skewness		.859	.661
	Kurtosis		.952	1.279
Barriers Addressed	Mean		15.9091	2.68143
	95% Confidence Interval for Mean	Lower Bound	9.9345	
		Upper Bound	21.8837	
	5% Trimmed Mean		15.7323	
	Median		10.0000	
	Variance		79.091	
	Std. Deviation		8.89331	
	Minimum		5.00	
	Maximum		30.00	
	Range		25.00	
	Interquartile Range		15.00	
	Skewness		.710	.661
	Kurtosis		-1.054	1.279
Bureaucracy	Mean		6.3636	1.36364
	95% Confidence Interval for Mean	Lower Bound	3.3253	
		Upper Bound	9.4020	
	5% Trimmed Mean		6.2374	

		Statistic	Std. Error	
Funding	Median	5.0000		
	Variance	20.455		
	Std. Deviation	4.52267		
	Minimum	.00		
	Maximum	15.00		
	Range	15.00		
	Interquartile Range	5.00		
	Skewness	.344	.661	
	Kurtosis	-.054	1.279	
	Mean	13.1818	2.88198	
	95% Confidence Interval for Mean	Lower Bound Upper Bound	6.7604 19.6033	
	5% Trimmed Mean		13.2576	
	Median		15.0000	
	Variance		91.364	
	Std. Deviation		9.55843	
	Minimum		.00	
	Maximum		25.00	
	Range		25.00	
	Interquartile Range		15.00	
	Skewness		-.203	.661
Kurtosis		-1.642	1.279	
Authorities	Mean	41.3636	6.43467	
	95% Confidence Interval for Mean	Lower Bound Upper Bound	27.0263 55.7010	
	5% Trimmed Mean		40.4040	
	Median		40.0000	
	Variance		455.455	
	Std. Deviation		21.34138	
	Minimum		10.00	
	Maximum		90.00	
	Range		80.00	
	Interquartile Range		25.00	
	Skewness		1.024	.661
	Kurtosis		1.893	1.279

Appendix BB

Round 3 Question 2 Narrative Answers

#	Responses
1	In a national response, governmental funding will flow; and there is always sufficient short-term reprogramming "flex" to respond to emergencies. Clarity in roles, responsibilities, authorities, and value to both parties is the first enabler out of the block. Bureaucratic culture can be changed with leadership. The limitations of policies/regs, and legal concerns are really the target of the partnership. EMBRACE the diversity of authorities as a strength, leverage the strategic strengths of the disparate parties and you won't find yourself inhibited in moving forward. In my experience, problems start when one (or both) parties start trying to assume responsibilities or acquire authorities of the other partners.
2	Leadership, goals and funding are key - good leaders will circumvent/manage bureaucracy and find away to work within existing legal frameworks
3	First must be to eliminate barriers to effective and efficient response. This must be preplanned for implementation immediately. Then, clear and concise mission statement with supporting rational.
4	In an immediate disaster situation, PPPs need strong leaders with the authority to act. Any immediate barriers limiting cooperation must be addressed--and this often just "happens" as seen after 9/11 where the city of NY saw the importance of getting Verizon and Con Ed on the scene to restore electricity and telecom capability. Technically they weren't supposed to be near Ground Zero, but the urgency of crisis and the clear importance of their services brought the sectors together to facilitate their admittance into the area. I don't think that the NSPPP itself having funding is necessarily important--the government has emergency funds at its disposal and in this type of crisis, the private sector will also contribute--it's in their best interests. Having the NSPPP as a framework/infrastructure to house the partnership is, however, extremely important.
5	Clear Objectives, necessary authorities, and adequate funding are most important, and equally so. The other two both must be addresses as well, but of slightly lesser importance.

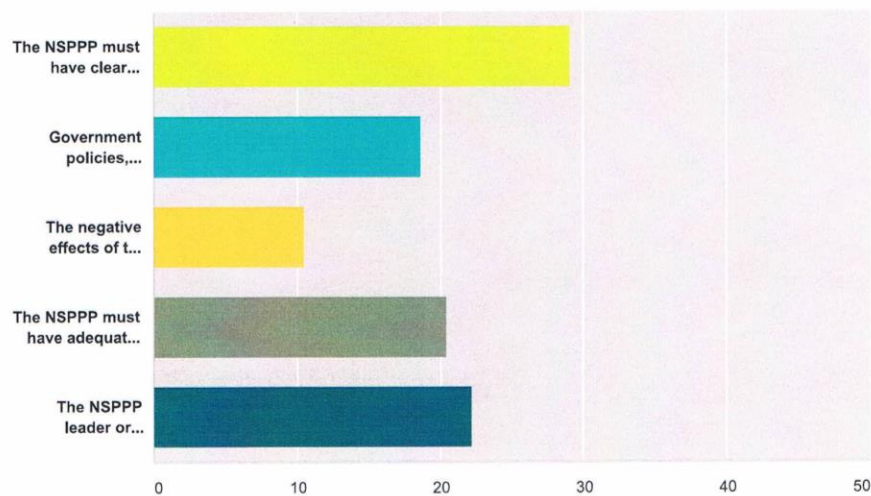
6	If you don't know where you are going, you won't get there. Barriers will kill you.
7	Authority to act must be clear and beyond question. Obviously, laws cannot be broken, but the leader must be given authority unlike any time in our history other than Pearl Harbor
8	In a crisis situation, it is more important that the authorities have been put in to place. There will no time to discuss who is in-charge and what they can do. Funding must be available to take action. The bureaucracy might be less of a problem in a crisis situation.
9	I gave the most weight to decision making authority because that is so essential to rapid response post-disaster. I gave little weight to goals/objectives not because I don't think they're important, but rather because this seems to be relatively clear when we are in response mode .
10	It is obvious to me that the NSPPP is created for a specific purpose, and that must be expressed clearly and communicated to all affected. Secondly, without appropriate authority to act decisively - with unambiguous connection to US DHS and the White House - few will pay attention to their mandates.
11	The friction of the event must be addressed, and although the bureaucratic culture exists, if the organization has the authority to act rapidly and decisively, this can be overcome.

Appendix CC

Round 3 Question 3

Q3 You are responsible for the formation of the NSPPP for the national security crisis above. What percentage of importance would you place on each key result indicator? Please place a percentage number in each box (e.g., 23, 57, 13, etc.).

Answered: 11 Skipped: 0



Answer Choices	Average Number	Total Number	Responses
The NSPPP must have clear goals and objectives	29	320	11
Government policies, statutes, and regulations and private sector privacy and legal concerns acting as barriers to an effective NSPPP must be addressed	19	205	11
The negative effects of the United States bureaucratic culture must be addressed	11	105	10
The NSPPP must have adequate funding	20	225	11
The NSPPP leader or oversight organization must have the authorities necessary to act rapidly and decisively	22	245	11
Total Respondents: 11			

	G&O	Barriers Addressed	Bureaucracy	Funding	Authorities
DP	30	10	10	30	20
DP	20	20	5	25	30
DP	30	20	0	20	30
DP	30	20	20	20	10
DP	25	15	10	25	25
DP	60	20	5	5	10
DP	25	25	0	25	25
DP	25	25	10	15	25
DP	5	10	10	25	50
DP	30	10	15	20	25
DP	20	20	20	20	20

Statistics

		Goals & Obj	Barriers Addressed	Bureaucracy	Funding	Authorities
N	Valid	11	11	11	11	11
	Missing	0	0	0	0	0
Mean		27.2727	17.7273	9.5455	20.9091	24.5455
Median		25.0000	20.0000	10.0000	20.0000	25.0000

			Statistic	Std. Error
Goals & Obj	Mean		27.2727	3.95219
	95% Confidence Interval for Mean	Lower Bound	18.4667	
		Upper Bound	36.0788	
	5% Trimmed Mean		26.6919	
	Median		25.0000	
	Variance		171.818	
	Std. Deviation		13.10794	
	Minimum		5.00	
	Maximum		60.00	
	Range		55.00	
	Interquartile Range		10.00	
	Skewness		1.263	.661
	Kurtosis		4.523	1.279
Barriers Addressed	Mean		17.7273	1.70075
	95% Confidence Interval for Mean	Lower Bound	13.9378	
		Upper Bound	21.5168	
	5% Trimmed Mean		17.7525	
	Median		20.0000	
	Variance		31.818	
	Std. Deviation		5.64076	
	Minimum		10.00	
	Maximum		25.00	
	Range		15.00	

		Statistic	Std. Error	
Bureaucracy	Interquartile Range	10.00		
	Skewness	-.393	.661	
	Kurtosis	-1.182	1.279	
	Mean	9.5455	2.07305	
	95% Confidence Interval for Mean	Lower Bound	4.9264	
		Upper Bound	14.1645	
	5% Trimmed Mean	9.4949		
	Median	10.0000		
	Variance	47.273		
	Std. Deviation	6.87552		
	Minimum	.00		
	Maximum	20.00		
	Range	20.00		
	Interquartile Range	10.00		
	Skewness	.196	.661	
Kurtosis	-.702	1.279		
Funding	Mean	20.9091	2.00207	
	95% Confidence Interval for Mean	Lower Bound	16.4482	
		Upper Bound	25.3700	
	5% Trimmed Mean	21.2879		
	Median	20.0000		
	Variance	44.091		
	Std. Deviation	6.64010		
	Minimum	5.00		
	Maximum	30.00		
	Range	25.00		
	Interquartile Range	5.00		
	Skewness	-1.340	.661	
	Kurtosis	2.740	1.279	
	Authorities	Mean	24.5455	3.26514
		95% Confidence Interval for Mean	Lower Bound	17.2703
Upper Bound			31.8206	
5% Trimmed Mean		23.9394		
Median		25.0000		
Variance		117.273		
Std. Deviation		10.82925		
Minimum		10.00		
Maximum		50.00		
Range		40.00		
Interquartile Range		10.00		
Skewness		1.008	.661	
Kurtosis		2.658	1.279	

Appendix DD

Round 3 Question 4 Narrative Answers

#	Responses
1	<p>You're placing way too much concern behind negative effects of USG bureaucratic culture. Most cases of negative culture are actually an inability for the USG side to clearly identify who's in charge - resulting in rice bowl fights that appear from the outside to be bureaucratic culture. Again, leadership takes care of this.</p> <p>Unfortunately, there is a lack of leadership in USG for most issues. Regardless that most of the vulnerabilities are in the private sector, they don't impact the risk calculus of most utilities because they aren't impacting the short-term bottom line. Therefore, it's up to the Govt to insure sufficient resources are allocated to fixing those elements of it's C2 architecture which touch the private sector - hence my increased focus on funding in this use case. It's also up to the Govt long-term to insure that there is sufficient resilience built in to accommodate for a vastly different risk/gain valuation in telco.</p>
2	<p>In this particular scenario the government will likely have the lead - but private sector leadership is critical as well. There may be discussion of govt funded foundries to support manufacture of critical supply chain components. Longer term efforts will also require govt support infrastructure as well.</p>
3	<p>Mitigation strategy. First, must clearly define expected outcome and processes, and act with authority. Authority is most critical in long-term activity. Probably will have to push and pull to get cooperation across government structures.</p>
4	<p>This scenario is a long game and the most difficult type of PPP. To make this kind of partnership work, one needs clear and focused goals and the ability to overcome bureaucratic and cultural barriers that will inevitably rear their ugly heads frequently and with a veracity one sees far less in PPPs responding to immediate crisis situations where a shared sense of urgency incentivizes cooperation and the elimination of these kind of barriers.</p>
5	<p>As stated earlier, clear objectives, adequate funding, and decision making authority are all equally important to the success of the initiative. The others must also be addressed, but are not as important as the first three.</p>
6	<p>Not sure the question even makes sense. Why would my priorities change simply because a specific scenario is presented?????</p>

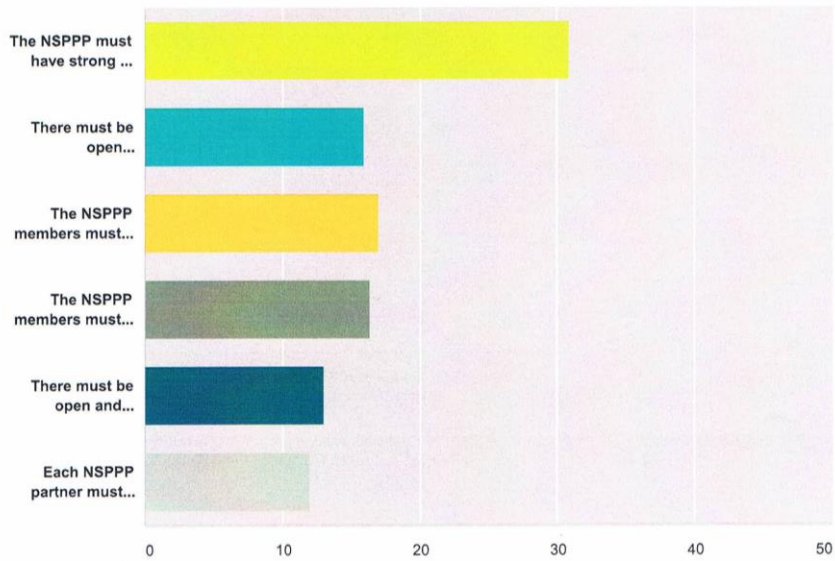
7	With more time to plan and debate, there is less urgency and crisis so more care be taken to develop goals, obtain funding etc.
8	A more strategic partnership has more distributed needs.
9	I gave more weight to goals/objectives than the previous question because it seems these kinds of efforts struggle more on this issue than disaster response efforts. I gave low percentage to USG bureaucracy because I think this is just a fact of life that can be managed in a well-run project. I gave relatively high percentage to decision making because it is still important even if there is not the urgency of disaster response, and in fact might be less clear in a longer term project.
10	Similar to the previous scenario, in order to be successful with such an amalgam, and to exist for such an extended period, the overall goals and objectives must be known to all, communicated clearly to participants and to the media, and must be fully understood. Authority and connections to DHS and the White House are perhaps even more critical here, as is the funding, because of the anticipated length of the assignment and the cost to participants away from their normal work/job routine.
11	I believe that all of these are important, and that they are equally weighted in this scenario

Appendix EE

Round 3 Question 5

Q5 You are responsible for the formation of the NSPPP for the national security crisis above. What percentage of importance would you place on each key performance indicator? Please place a percentage number in each box (e.g., 23, 57, 13, etc.).

Answered: 11 Skipped: 0



Answer Choices	Average Number	Total Number	Responses
The NSPPP must have strong and competent leadership	31	340	11
There must be open information sharing and transparency	16	160	10
The NSPPP members must have a unity of purpose	17	170	10
The NSPPP members must have a sense of urgency	16	180	11
There must be open and unrestricted communication between NSPPP partners	13	130	10
Each NSPPP partner must understand their value to the overarching effort	12	120	10
Total Respondents: 11			

	Leadership	Info Sharing	Unity	Urgency	Communication	Value
DP	20	10	20	20	20	10
DP	25	15	20	15	10	15
DP	20	15	20	20	5	20
DP	30	20	10	10	20	10
DP	70	0	0	30	0	0
DP	35	20	15	0	20	10
DP	20	15	15	20	15	15
DP	25	20	20	25	5	5
DP	25	15	15	20	15	10
DP	20	20	15	15	15	15
DP	50	10	20	5	5	10

Statistics

		Leadership	Info Sharing	Unity	Urgency	Communications	Value
N	Valid	11	11	11	11	11	11
	Missing	0	0	0	0	0	0
Mean		30.9091	14.5455	15.4545	16.3636	11.8182	10.9091
Median		25.0000	15.0000	15.0000	20.0000	15.0000	10.0000

		Statistic	Std. Error	
Leadership	Mean	30.9091	4.75864	
	95% Confidence Interval for Mean	Lower Bound	20.3062	
		Upper Bound	41.5120	
	5% Trimmed Mean	29.3434		
	Median	25.0000		
	Variance	249.091		
	Std. Deviation	15.78261		
	Minimum	20.00		
	Maximum	70.00		
	Range	50.00		
	Interquartile Range	15.00		
	Skewness	1.895	.661	
	Kurtosis	3.305	1.279	
Info Sharing	Mean	14.5455	1.84077	
	95% Confidence Interval for Mean	Lower Bound	10.4440	
		Upper Bound	18.6469	
	5% Trimmed Mean	15.0505		
	Median	15.0000		
	Variance	37.273		
	Std. Deviation	6.10514		
	Minimum	.00		
	Maximum	20.00		

		Statistic	Std. Error		
Unity	Range	20.00			
	Interquartile Range	10.00			
	Skewness	-1.405	.661		
	Kurtosis	2.320	1.279		
	Mean	15.4545	1.84077		
	95% Confidence Interval for Mean	Lower Bound Upper Bound	11.3531 19.5560		
	5% Trimmed Mean	16.0606			
	Median	15.0000			
	Variance	37.273			
	Std. Deviation	6.10514			
	Minimum	.00			
	Maximum	20.00			
	Range	20.00			
	Interquartile Range	5.00			
	Skewness	-1.818	.661		
Kurtosis	3.760	1.279			
Urgency	Mean	16.3636	2.61907		
	95% Confidence Interval for Mean	Lower Bound Upper Bound	10.5280 22.1993		
	5% Trimmed Mean	16.5152			
	Median	20.0000			
	Variance	75.455			
	Std. Deviation	8.68646			
	Minimum	.00			
	Maximum	30.00			
	Range	30.00			
	Interquartile Range	10.00			
	Skewness	-.511	.661		
	Kurtosis	.047	1.279		
	Communications	Mean	11.8182	2.16088	
		95% Confidence Interval for Mean	Lower Bound Upper Bound	7.0034 16.6329	
		5% Trimmed Mean	12.0202		
Median		15.0000			
Variance		51.364			
Std. Deviation		7.16684			
Minimum		.00			
Maximum		20.00			

		Statistic	Std. Error	
Value	Range	20.00		
	Interquartile Range	15.00		
	Skewness	-.288	.661	
	Kurtosis	-1.404	1.279	
	Mean	10.9091	1.62623	
	95% Confidence Interval for Mean	Lower Bound	7.2856	
		Upper Bound	14.5326	
	5% Trimmed Mean	11.0101		
	Median	10.0000		
	Variance	29.091		
	Std. Deviation	5.39360		
	Minimum	.00		
	Maximum	20.00		
	Range	20.00		
	Interquartile Range	5.00		
	Skewness	-.430	.661	
	Kurtosis	.828	1.279	

Appendix FF

Round 3 Question 6 Narrative Answers

#	Responses
1	<p>Before I even weigh the factors, I would resist the formation of another bureaucracy unless I am assured that existing institutions and partnerships haven't been optimized to mitigate the disaster. Energy and resources would necessarily detract from first response and there is no guarantee that that distraction wouldn't be disruptive at the worst possible time. I know I'm fighting the scenario, but I wanted to make sure that somewhere in my comments I place the cautionary note that your first reaction should be to survey existing processes before injecting new ones while the system is under stress. Assuming we find that a NSPPP is necessary. Leadership is critical to insure that you aren't treading on existing agencies already responding and allocating resources to the problem. One can argue that if you're standing up an NSPPP at this point without adequate modeling and gaming with all the players beforehand, you're going into this with eyes shut and ears deaf. Leadership is required to understand where gaps are, where agencies are covering well, and where a new partnership is working seams, not creating overlap.</p>
2	<p>Leadership is still key but there is a greater balance among the key performance indicators - these can be addressed by competent leadership.</p>
3	<p>Most important is to structure leadership to enable decisive action during crisis, and maintain central focus on resolving the crisis.</p>
4	<p>Strong leadership is paramount and the glue that will bound the partnership and ultimately determine it's success. Information share/transparency is equally important--to me there is little difference between transparency and unrestricted communication. Combined, these are just as important as strong leadership. The partners must coordinate and communicate to ensure they are leveraging all the private/public resources in be best possible way to achieve the best, most efficient results and avoid duplicating efforts--something that has been a challenge in the past. Unity of purpose/shared sense of urgency is key, but also a bit inherent with this kind of PPP. It will be the shared sense of urgency/unity that will drive partners to engage in the PPP in the first place due to the magnitude/severity of the crisis event. Value is always important, but in a large scale crisis, it is about returning to "business as usual" for both sectors so it's less about perceived value at this point in the partnership. The priority is restoration of normality.</p>

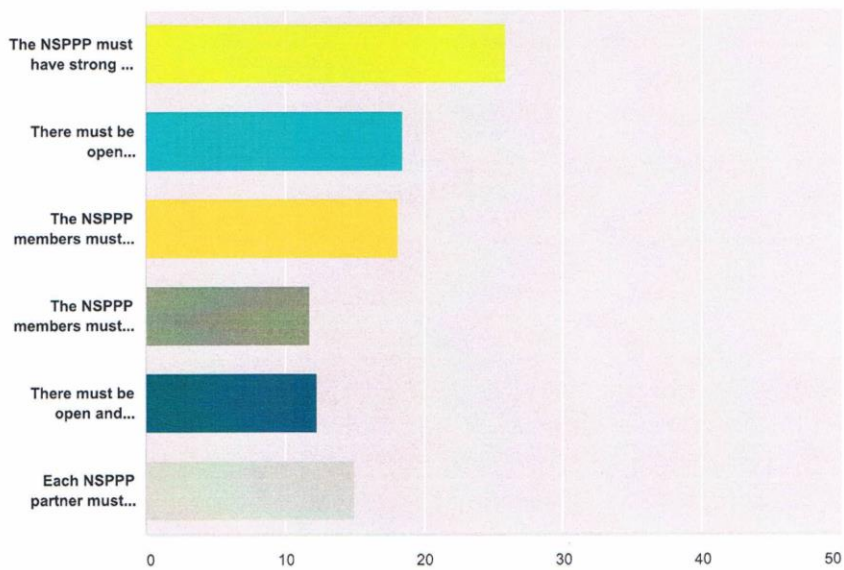
5	All are equally important to success of the initiative, with a slight preference to leadership and sense of urgency
6	If things were crashing and burning as stated in this scenario, you need a strong and competent leader and everyone must know what is going on. If folks don't have a sense of urgency, they shouldn't be part of the effort.
7	I still believe that you must have a strong leader with full authority with the team working with a high degree of urgency
8	Leadership is critical.
9	These all are very important, so I put somewhat equal weights on all of them. I could not understand your distinction between "open information sharing" and "open and unrestricted communication." I put more weight on "information sharing" because I thought you might be referring to the security classification system in the latter, and I think that is reasonably workable already in my experience.
10	This is quite difficult as all performance indicators are important to success! Relatively speaking, however, leadership is once again the most important factor, with a unity of purpose close behind. With such a terrible scenario, affecting such a wide geographic area of the country, and attacking a variety of entities, the urgency should be apparent. The defined roles of each participant are important so that each entity feels they are contributing in a meaningful way to the national purpose. Of course, open information sharing is a necessity as well, and should be a given in such a scenario (one must assume that the participants know each other, have exercised/drilled previously, and understand their expected role in the NSPPP - that is critical in emergency preparedness.

Appendix GG

Round 3 Question 7

Q7 You are responsible for the formation of the NSPPP for the national security crisis above. What percentage of importance would you place on each key performance indicator? Please place a percentage number in each box (e.g., 23, 57, 13, etc.).

Answered: 11 Skipped: 0



Answer Choices	Average Number	Total Number	Responses
The NSPPP must have strong and competent leadership	26	285	11
There must be open information sharing and transparency	19	185	10
The NSPPP members must have a unity of purpose	18	200	11
The NSPPP members must have a sense of urgency	12	130	11
There must be open and unrestricted communication between NSPPP partners	12	135	11
Each NSPPP partner must understand their value to the overarching effort	15	165	11
Total Respondents: 11			

	Leadership	Info Sharing	Unity	Urgency	Communication	Value
DP	20	10	30	10	10	20
DP	20	20	15	15	15	15
DP	30	10	20	15	15	10
DP	25	20	15	10	20	10
DP	20	15	20	15	15	15
DP	30	30	10	0	15	15
DP	50	0	10	20	10	10
DP	25	25	25	5	10	10
DP	20	15	20	20	5	20
DP	25	20	15	10	10	20
DP	20	20	20	10	10	20

Statistics

		Leadership	Info Sharing	Unity	Urgency	Communications	Value
N	Valid	11	11	11	11	11	11
	Missing	0	0	0	0	0	0
Mean		25.9091	16.8182	18.1818	11.8182	12.2727	15.0000
Median		25.0000	20.0000	20.0000	10.0000	10.0000	15.0000

Descriptives

		Statistic	Std. Error	
Leadership	Mean	25.9091	2.68143	
	95% Confidence Interval for Mean	Lower Bound	19.9345	
		Upper Bound	31.8837	
	5% Trimmed Mean	24.8990		
	Median	25.0000		
	Variance	79.091		
	Std. Deviation	8.89331		
	Minimum	20.00		
	Maximum	50.00		
	Range	30.00		
	Interquartile Range	10.00		
	Skewness	2.274	.661	
	Kurtosis	5.900	1.279	

Info Sharing	Mean		16.8182	2.45623	
	95% Confidence Interval for Mean	Lower Bound	11.3454		
		Upper Bound	22.2910		
	5% Trimmed Mean		17.0202		
	Median		20.0000		
	Variance		66.364		
	Std. Deviation		8.14639		
	Minimum		.00		
	Maximum		30.00		
	Range		30.00		
	Interquartile Range		10.00		
	Skewness		-.551	.661	
	Kurtosis		.805	1.279	
	Unity	Mean		18.1818	1.81818
95% Confidence Interval for Mean		Lower Bound	14.1307		
		Upper Bound	22.2330		
Urgency	5% Trimmed Mean		17.9798		
	Median		20.0000		
	Variance		36.364		
	Std. Deviation		6.03023		
	Minimum		10.00		
	Maximum		30.00		
	Range		20.00		
	Interquartile Range		5.00		
	Skewness		.446	.661	
	Kurtosis		.129	1.279	
	Urgency	Mean		11.8182	1.81818
		95% Confidence Interval for Mean	Lower Bound	7.7670	
			Upper Bound	15.8693	
		5% Trimmed Mean		12.0202	
Median			10.0000		
Variance			36.364		
Std. Deviation			6.03023		
Minimum			.00		
Maximum			20.00		
Range			20.00		
Interquartile Range			5.00		
Skewness			-.446	.661	
Kurtosis			.129	1.279	

Communications	Mean		12.2727	1.23650
	95% Confidence Interval for Mean	Lower Bound	9.5176	
		Upper Bound	15.0278	
	5% Trimmed Mean		12.2475	
	Median		10.0000	
	Variance		16.818	
	Std. Deviation		4.10100	
	Minimum		5.00	
	Maximum		20.00	
	Range		15.00	
	Interquartile Range		5.00	
	Skewness		.176	.661
	Kurtosis		.187	1.279
	Value	Mean		15.0000
95% Confidence Interval for Mean		Lower Bound	11.9956	
		Upper Bound	18.0044	
5% Trimmed Mean			15.0000	
Median			15.0000	
Variance			20.000	
Std. Deviation			4.47214	
Minimum			10.00	
Maximum			20.00	
Range			10.00	
Interquartile Range			10.00	
Skewness			.000	.661
Kurtosis			-1.875	1.279

Appendix HH

Round 3 Question 8 Narrative Answers

#	Responses
1	Long term partnership infers a requirement to diagnose a problem impacting everyone and a continual relationship to continue to mitigate the problem. Unity of purpose, a commensurate understanding of relative value to the venture, and leadership to sustain the effort long-term is weighted as critical to this effort. Information sharing will come if the other criteria are achieved, but not the other way around. I hesitate to grade communication higher because you are inherently asking competitors to openly share information in the partnership which, over a long period of time, may be strategically harmful to competitiveness. You may be able to leverage the partnership to discuss and establish standards (your "protocol"), but the telco and parts supply chain is way to diverse, as well as international, to mitigate and deter in any meaningful or long-term way.
2	Same logic as previous question - strong leadership will bring a greater balance to this effort.
3	Strong leadership for long-term incident cannot be over emphasized.
4	Leadership is crucial to make all the other factors--transparency, shared prioritization, sense of value, etc., possible. Beyond that info sharing and having a sense of value add is key to the sustainability of the endeavor. If partners feel their contributions aren't used/valued or feel bureaucratic or information barriers are too great, participants won't be motivated to continue to contribute or engage in the partnership. Shared sense of urgency is always important and a factor, but in this scenario, it is more a shared sense of potential risk than immediate urgency.
5	All are of equal importance, with a slight preference in this case for leadership and unity of purpose. Since this is longer term effort, sense of urgency becomes a bit less important than in the previous example.
6	Leadership and authorities must over-ride everything else
7	In a more strategic partnership, the need for "urgency" is less important. Leadership, transparency and a mutually beneficial arrangement are equal.

8	<p>All of these are important, so I put nearly equal weights on all of them. As in the previous question, I combined the percentage I applied to "open information sharing" and "open communication" since I think they are very similar. The one area that is important but harder to address in a project like this is establishing a sense of urgency.</p>
9	<p>Perhaps a bit more difficult to differentiate among the performance indicators with an NSPPP expected to exist for four years, but leadership is again a critical factor for success. Maintaining that essential energy and focus for so many members for such a lengthy period is a major challenge, and all must appreciate their contributions and role in the overall success. Again, communications is also essential; it must be often, clear, and exhibit a connection to DHS and the White House to further emphasize its importance.</p>

Appendix II

Intraclass Correlation Coefficient

Case Processing Summary

	N	%
Valid	17	100.0
Cases Excluded ^a	0	.0
Total	17	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.856	11

Item Statistics

	Mean	Std. Deviation	N
Person 1	4.7647	2.53795	17
Person 2	4.7647	2.53795	17
Person 2	4.7647	2.53795	17
Person 4	4.7647	2.53795	17
Person 5	4.7647	2.53795	17
Person 6	4.7647	2.53795	17
Person 7	4.7647	2.53795	17
Person 8	4.7647	2.53795	17
Person 10	4.7647	2.53795	17
Person 11	4.7647	2.53795	17
Person 12	4.7647	2.53795	17

Intraclass Correlation Coefficient

	Intraclass Correlation ^b	95% Confidence Interval		F Test with True Value 0		
		Lower Bound	Upper Bound	Value	df1	df2
Single Measures	.364 ^a	.205	.598	6.925	16	160
Average Measures	.863 ^c	.739	.942	6.925	16	160

Two-way mixed effects model where people effects are random and measures effects are fixed.

- The estimator is the same, whether the interaction effect is present or not.
- Type A intraclass correlation coefficients using an absolute agreement definition.
- This estimate is computed assuming the interaction effect is absent, because it is not estimable otherwise.

Appendix JJ

Cronbach's Alpha

Scale: ALL VARIABLES

Case Processing Summary

	N	%
Valid	12	100.0
Cases Excluded ^a	0	.0
Total	12	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.886	28

Item-Total Statistics

	Scale Mean if Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
VAR00001	50.5000	132.091	.000	.888
VAR00002	50.5000	132.091	.000	.888
VAR00003	50.8333	135.424	-.312	.893
VAR00004	50.5833	132.992	-.148	.889
VAR00005	50.6667	128.424	.398	.884
VAR00006	50.5833	132.992	-.148	.889
VAR00007	50.5000	132.091	.000	.888
VAR00008	50.5000	132.091	.000	.888

VAR00009	50.5833	127.538	.686	.883
VAR00010	50.5833	127.538	.686	.883
VAR00011	50.6667	131.697	.027	.888
VAR00012	50.5833	132.811	-.121	.889
VAR00013	50.6667	126.061	.673	.882
VAR00014	50.5833	132.811	-.121	.889
VAR00015	50.6667	126.061	.673	.882
VAR00016	50.5833	127.538	.686	.883
VAR00017	50.7500	128.568	.324	.885
VAR00018	51.0833	115.356	.615	.878
VAR00019	50.3333	104.242	.750	.874
VAR00020	49.6667	98.061	.863	.870
VAR00021	49.9167	101.720	.645	.884
VAR00022	50.9167	116.629	.672	.876
VAR00023	51.5000	121.000	.809	.877
VAR00024	50.5833	112.811	.864	.871
VAR00025	50.3333	112.606	.713	.875
VAR00026	50.1667	111.970	.769	.873
VAR00027	51.0833	117.720	.694	.876
VAR00028	51.5833	122.629	.806	.878