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How Grant Recipients Can Satisfy Compliance Requirements for U.S. Federal Awards

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Abstract

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Abstract

Improper grants payments stemming from weaknesses in business processes have been a focus of the U.S. president, Congress, and federal and state governments since 2009. Researchers have demonstrated that the internal control weakness at the federal, state, and local government level has contributed to the problem of compliance. The Office of Management and Budget issued federal rules effective in December 2014 to address the problem of federal award compliance. Despite these measures, there is a gap in the literature on strategies for recipients of federal grants to meet compliance requirements. The purpose of the qualitative descriptive study was to explore how recipients can satisfy compliance requirements across the full life cycle of their grants. Systems thinking and compliance theories were selected to analyze data. Participants were 20 certified grants management specialists. The research questions included inquiry on the strategies for federal award compliance. Described were participants' strategies to improve business processes for grant compliance. Emergent thematic findings included staff and leadership training as participants' main strategy for complying with uniform requirements, while written policies and procedures and use of grant management software emerged as secondary strategies. Grant managers may benefit from learning about the strategies described in this study by implementing business process improvements in their organizations. Compliant recipients of grants may have a positive effect on social change with more grant funds becoming available to states, local governments, higher education, and nonprofit organizations for the public good.

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Dedication

I would not have achieved this honor without the steadfast support of my loving wife Merril Oliver. She was an integral part of this journey as a mentor and motivator. She motivated me and supported me at the right times. I would not have completed this journey without her. This doctoral study is dedicated to the memory of my mother, Faye Drabczyk, who I know would have been very proud of me. And to my father, Stan Drabczyk, who continues to amaze me with his strength and zeal for life. Finally, I thank my son, Tom Jr. for understanding the sacrifice it takes to reach the doctoral level in education and hope in some way I have motivated him set high goals for himself in life and not be afraid to go after them.

Acknowledgments

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Section 1: Foundation of the Study

In 2009, President Obama issued an executive order designed to reduce the

number of improper payments of federal funds by improving oversight, accountability,

and transparency (Werfel & Steinhoff, 2014, see, also, Executive Order No. 13,520,

2009). In the executive order, the president set forth requirements for federal agencies in

making payments (Owens & Jessup, 2014). The order, along with other federal

government actions resulted in a reduction in improper payments in FY2013 of 5.42

percent (Owens & Jessup, 2014).

In 2012, the U.S. Government Accountability Office (GAO) identified

management problems in federally funded grant management programs as the cause of a

variety of challenges for grant recipients (Morton-Huddleston & Dixon, 2014). The

problems directly led to the improper payment problems addressed in President Obama's

executive order. According to the Government Accountability Office (2012c), state and

local governments receive 80% of all federal grants funding, while the remaining 20% go

to nonprofits, research institutions, and individuals. States and nonprofits use grant

awards for goods and services for the public good (Steinhoff, 2011).

Grant funds directly influence the economies of grant funded communities

because recipients use these funds to procure goods and services from private sector

businesses and nonprofits (M. E. Oliver, personal communication, April 19, 2015). Some

examples include construction materials and project management, food and other

consumer commodities for underserved populations, and books and supplies for local

schools. For this study, I sought a better understanding of the experiences of

professionals invested in the implementation, oversight, and accountability of federally funded grant programs.

In Section 1, I described issues that agencies have had in implementing the Uniform Guidance for Federal Awards. I provided the problem and purpose statements undergirding my investigation, and I offered a preview of my research method and design. I also explained the development of the two theories, compliance and systems thinking, supporting the conceptual framework for the study. I then briefly discussed my assumptions and the limitations and delimitations of the study. I also described how my research might benefit society and contribute to business and industry. Finally, a review of the professional and academic literature provided an n depth overview of the research problem.

Background of the Problem

Recipients of federal awards need to have better strategies for improving internal controls for complying with the rules for receiving a federal grant. Despite the intentions of the U.S. Congress, who has passed several laws to reduce improper payments, the federal government has been unable to fully implement the provisions needed to reduce improper payments (Morton-Huddleston, 2012). Schillemans, Twist, and Vanhommerig (2013) asserted that public organizations benefit from being transparent and accountable. According to the Government Accountability Office (2012c), federal government and state governments need better organization, finances, and human capital to manage grant programs. Internal control processes in both federal grantmaking agencies and grant

recipients must improve to reduce improper payments (GAO, 2012c; Owens & Jessup, 2014).

As part of its efforts to provide more oversight and reduce the administrative burden on grantors and grantees; the federal government issued new rules. In December 2013, the controller at the White House Office of Management and Budget (OMB) issued Uniform Guidance, which consolidated eight other compliance circulars into one document (Ashenfarb, 2015, see, also, Federal Register, 2013). The guidance, effective December 26, 2014, fully lays out the Uniform rules for federal awards. The Office of Management Budget's objective was to streamline requirements for entities participating in the grant life cycle (Martin, 2014). In doing so, the Office of Management and Budget sought to reduce administrative burdens and to improve the efficiency and effectiveness of grantor and grantee organizations.

The Uniform Guidance included several reforms such as (a) standard requirements across federal agencies, (b) grant designs focused on outcomes, (c) collaboration between federal agencies and nonfederal partners, and (d) elimination of duplication (Ashenfarb, 2015). Grant recipients must improve their internal controls for single audit readiness (Martin, 2014). The guidelines could affect nonprofits the most because of the lack of administrative resources to manage a grant (Martin, 2014). Adjustments to internal business processes at the state and local government likely require changes to work with pass through entities (Ashenfarb, 2015). Pass through entities assume the role of the federal government in the management and oversight of grant programs to subrecipients.

Problem Statement

Leaders at the U.S. Government Accountability Office identified a need for states, local governments, and nonprofits to increase compliance, accountability, and oversight of federal grant funded programs (GAO, 2014b). The U. S. Government issues $600 billion of federal grants each year; of this amount, federal agencies reported that $124 billion was managed improperly in 2014 (Jacob, 2015). In 2013, the Office of Management and Budget issued Uniform Guidance to streamline compliance requirements for federal awards (Ashenfarb, 2015). The general business problem undergirding this study is some grant recipients do not have the knowledge to be audit ready for full life cycle grant management implementation (Morton-Huddleston & Dixon, 2014). The specific business problem is that some leaders of organizations who are federal grant recipients lack the strategies needed for full life cycle grant management to implement the guidance (GAO, 2014b).

Purpose Statement

The purpose of the qualitative descriptive study was to identify the strategies that grant recipients use to implement federal award compliance requirements across the full life cycle of their grants. Twenty certified grants management specialists (CGMS) participated in the study. As members of the U.S. based National Grants Management Association (NGMA), they have specialized knowledge about full life cycle grants management (2012). Members participating in the study reside in different locations across the contiguous United States. I conducted semistructured telephone interviews

with the participants to explore factors affecting their implementation of the Uniform Guidance.

Highlighting some of the strategies that grants managers use to implement the guidelines may reduce the administrative burden on grant managers in state and local government and nonprofit organizations who receive and manage grants. The Uniform Guidance includes cost principles, audit, and administrative requirements for federal awards (Ashenfarb, 2015). Data from the study could have a positive social impact by improving internal control processes grant recipients. Improvements may lead to significant savings in taxpayer dollars and additional grant awarding opportunities.

Nature of the Study

In this study, I used a qualitative approach to better understand what grant recipients are doing to comply with federal award requirements. This approach focuses on the description of individual lived experiences of the participants (Chenail, 2011b). The two other research methodologies are quantitative and mixed methods (Clark, 2010). In quantitative analysis, scholars compare relationships between one or more variables (Patton, 2002). A thorough literature review must occur to identify these variables and the research problem (Trusty, 2011). A mixed method approach combines qualitative and quantitative research approaches, but, usually, one method dominates the research (Östlund, Kidd, Wengström, & Rowa-Dewar, 2011). The variables that developed from the literature review aided my decision to conduct a qualitative study.

The depth of data sought from this study cannot develop through quantitative tools, but can through a qualitative design, making the latter the better choice. According

to Patton (2002), there are three types of qualitative data sources: interviews, in which the

researcher asks open ended questions; observations, in which the researcher richly

describes events; and documents, in which the researcher collect varied texts to achieve a

detailed inquiry. I conducted a minimum of 20 telephone interviews using open ended

questions. Content and thematic analysis of data gave me greater awareness of strategies

for implementing the uniform compliance requirements and potentially improving

internal controls at the grant recipient level.

I used a descriptive design. The descriptive design has roots in phenomenology

(Giorgi, 2009). A descriptive design develops from content and thematic analysis (Patton,

2002). A researcher uses a descriptive design when he or she wants straightforward

accounts of what occurred (Sandelowski, 2000). Giorgi (2009) stated that

phenomenology is a movement of many viewpoints and draws from Husserl's philosophy

of conducting research in psychology. According to Mayoh and Onwuegbuzie (2015),

one of the components of descriptive design is the nature of the reduction that occurs

with the inquiry. Mayoh and Onwuegbuzie likened descriptive design to a positivist's

view of total objectivity so as not to bias data.

I opted not to use other qualitative designs including case study, where a

researcher completes a detailed analysis of a group, person, or situation over time; Delphi

technique, where an expert panel receives structured questions; and phenomenological

study, where the researcher examines the lived experience of a participant (Patton, 2002).

The case study and Delphi methods do not satisfy the rigor needed to identify strategies

for grant recipients to implement federal award compliance requirements for full life

cycle grant management. Phenomenology may have been a viable method for my study; however, this method was not practical to support the conceptual framework and research questions.

Results from the study may further isolate factors causing improper payments. Gaining new strategies for recipients to implement the Uniform Guidance on federal awards could improve the efficiency and effectiveness of federally funded public programs. Reducing improper payments through proper compliance may help state and local governments gain the public's trust (Steinhoff & Carnahan, 2012). The redirection of grant funds back to its intended purpose contributes to positive social change because the purpose of a grant is for public good (Steinhoff, 2011).

Research Question

The overarching research question guiding this study was, What strategies do federal grant recipients use to be audit ready for full life cycle grant management based on the Uniform Guidance?

Interview Questions

1. What strategies do leaders of organizations who are federal grant recipients use to be audit ready for full life cycle grant management according to the Uniform Guidance?

2. What strategies have been implemented to improve internal controls (business processes) at the recipient level?

3. What strategies have been implemented to improve capacity (resources) at the recipient level?

4. What internal controls over financial information were used to facilitate greater data quality at the recipient level?

5. What internal control weaknesses lead to improper payments?

6. Is there anything else you would like to add about implementing the guidance to improve internal controls and capacity at the recipient level?

Conceptual Framework

In the study, I used one business management theory and a multi discipline theory to support the research process. The theories included compliance and systems thinking. The compliance theory applied to the study because of the requirement for grant recipients to comply with the uniform compliance requirements for federal awards. The use of general systems thinking (von Bertalanffy, 1972) was a guide to the research from a holistic point of view.

Etzioni (1975) introduced compliance theory in that organizations control participants using power and employee involvement. Etzioni found three types of power an organization might use; these include coercive, remunerative, and normative. The two types of relationship are either negative or positive, which vary from highly negative to highly positive (Chen, Ramamurthy, & Wen, 2013). Coercive power uses different types and levels of force (Etzioni, 1975). The compensation a person receives is a remunerative form of power. A related theory is *exchange theory*, where power interacts with other influences such as dependency and justice (Hoppner, Griffith, & Yeo, 2014). The elements of *exchange theory* do not align with the research questions.

To explore strategies for grant recipients to implement federal award compliance requirements for full life cycle grant management required a holistic approach. The application of general systems theory progressed into evaluation systems and the evaluation of systems (Cabrera, Colosi, & Lobdell, 2008). In the late 1920's, von Bertalanffy wrote about the need to investigate all levels of a biological system and called it organismic biology (von Bertalanffy, 1972). With General Systems Theory, a researcher examines the wholeness of systems, which applies to all areas of systems thinking (von Bertalanffy, 1972). Systems' thinking is a theoretical framework where the scholar examines the different parts and their relationship to the whole problem (Rubenstein-Montano et al., 2001). The theoretical foundations of systems thinking are an integral part of improving business processes and some enterprise risk management leaders look to incorporate the theory to improve ERM processes (Lee & Green, 2015).

Operational Definitions

In a research study, a list of definitions of key terms helps the reader to have a clear understanding of the study problem and method (Marshall & Rossman, 2011). The following terms appear often in my literature review and other sections:

Capacity: The state of having sufficient resources in terms of funding and personnel to manage operations is capacity (Steinhoff & Weber, 2011).

Federal grant: A federal grant is a legal, financial instrument used to award funds to various entities for the public good (Brooks & Phillips, 2010).

Grant life cycle: The four stages of the federal agency and recipient grant processes including the preaward, award, implementation, and closeout stages comprises the grant life cycle (GAO, 2012b).

Grantor: A federal grantmaking agency that provides awarded grant funds to grant recipients is the grantor (Kull, 2010).

Grant recipient: An entity that receives grant awards from a grantmaking agency is the grant recipient (Brooks & Phillips, 2010).

Improper grant payments: Payments made to grant recipients that do not meet federal compliance requirements are improper grant payments (Steinhoff, 2011).

Internal controls: A process designed to ensure the effectiveness, efficiency, and reliability to meet compliance requirements is the internal controls of an organization (Hammersley, Myers, & Zhou, 2012):

Oversight: The process an awarding entity uses with recipient entities to meet compliance requirements in full life cycle grants management is the oversight (Stoney & Krawchenko, 2012).

Pass through entity: A recipient of a grant that is not a federal agency such as a state or local government. The entity acts as both the recipient and grantor by providing a subaward to a subrecipient for the purposes of carrying out a federal program (GAO, 2013c).

Subrecipient: A recipient of a grant from a pass through entity received in the form of a subaward. A subrecipient may also be a recipient of other Federal grants directly from a Federal awarding agency (GAO, 2013c).

Assumptions, Limitations, and Delimitations

Walsh (2012) stated when a researcher poses a question to a study participant; the researcher makes an assumption. Walsh believed a researcher makes the assumption because he or she believes the facts to be true because they base them on the nature of the research topic and the bounds of knowledge. Limitations uncover the drawbacks or weaknesses of the study whereas delimitations are the limits of the study (Pemberton, 2012).

Assumptions

Assumptions are facts presumed to be true by the researcher yet unable to confirm (Patton, 2002). There are three basic assumptions to the study. First, study participants represented the beliefs of the population of grant professionals and grant practitioners. Second, participants would provide truthful and candid responses to the problem of the lack of strategies needed to comply with the compliance requirements for federal awards. Third, as certified grants management specialists, the professional association members are the most knowledgeable about the grant management field, so the interview participants would receive suitable questions to discern accurate answers (NGMA, 2012).

Limitations

Limitations are weaknesses in the study such as ambiguities, which could invite attacks on the credibility of the research (Patton, 2002). There were several limitations in the study. I conducted participant interviews by telephone, which took away the ability to observe facial expressions or body language. There was potential bias on the part of the interviewer in how to fix the compliance issues because internal control problems are

widespread in grant making agencies and the entities that receive grants (GAO, 2011a).

Moustakas (1994) suggested biases or prejudgments be set aside for working with

participants. Finally, the sample population was limited to certified grants management

specialists. Ideally, participation from both certified and noncertified grant managers

could have benefited the results.

Delimitations

Delimitations are characteristics a researcher identifies as the boundaries of the

research (Lunenburg & Irby, 2008). Within those boundaries, I explored strategies for

recipients to comply with uniform compliance requirements for federal awards inside the

grant life cycle. Other grant administrators and managers could provide valuable sources

of data related to the research questions; however, they did not hold the professional

certification required for the study. Participants, such as grant managers at the state and

local level, nonprofit organizations, or information technology professionals who set up

electronic reporting networks are other sources of valuable data. I limited participation to

certified grants management specialists certified experts who might give insight into

federal award compliance and potentially, provide strategies to implement the uniform

guidance for federal funds. The data collection took place in telephone interviews up to

one hour in length.

<p align="center">**Significance of the Study**</p>

The characteristic of the doctoral study in business administration was the

orientation toward a professional doctorate where the relationship between higher

education and the business world come together (Robinson, Morgan, & Reed, 2016). The

goal of the study was to explore strategies for grant recipients to implement federal award compliance requirements for full life cycle grant management. The move toward business process improvement has become increasingly significant in the federal government (Kee, 2012). In 2012, the momentum for accountability and transparency gained strength because of congressional mandates and citizen participation through Internet communication. Yusuf and Jordan (2015) found the public dissatisfied with the way the government reported financial information and with the level of transparency. The issue with meeting compliance rules is a business process problem that negatively affects the receiving organization and the implementation of public policy objectives (Owens & Jessup, 2014). In the study, I focused on exploring strategies used by grant recipients to implement federal award compliance requirements for full life cycle grants management. To accomplish this, I collected data from subject matter experts in both the public and private sectors who held the credential of a certified grants management specialists.

Contribution to Business Practice

I explored the awareness of strategies used for improving the business processes used to comply with federal award compliance requirements. According to Morton-Huddleston (2010), the implementation of the Improper Payments Information Act (IPIA) of 2002 resulted in an improvement in business processes at all levels, which led to a reduction of improper payments. Results of the study may provide a blueprint for improving internal controls by identifying strategies to improve business processes and systems used to comply with the uniform compliance requirements of a federal grant.

Implications for Social Change

The results from the study could have implications for social change with the potential to identify strategies to improve internal controls and capacity at the recipient level. Improvements to internal control mechanisms at the federal, state, and local governments may help to redirect funds back to their intended purpose. Federal Grants are cash payments designed for a specified purpose, which achieves national objectives for the public good (Brooks & Phillips, 2010). Nearly 80% of federal grants go to state and local governments while nonprofit organizations, research institutions, and individuals compete for the remaining funds (GAO, 2012c).

The lack of resources available to grant administrators contributed to the improper payment problem (Nicholson-Crotty, 2012). In the study, I further explored ways to make the business process in grant management more efficient to overcome the lack of resources. The ability to streamline internal control processes, increase transparency through electronic reporting and compliance with reporting requirements might significantly reduce improper payments. Improvements in transparency may help federal and local governments regain the public's trust (Steinhoff & Carnahan, 2012).

<div align="center">

A Review of the Professional and Academic Literature

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In the literature review, I focused on the need for improvement in compliance, oversight, and accountability in grant funded programs. Compliance deficiencies are widespread across a multitude of federally funded programs (GAO, 2011a). As such, I considered all elements of the grant lifecycle and the federal laws that apply.

To examine compliance and other topics related to my study, I applied von Bertalanffy's systems thinking theory to the design of the literature review because I used a holistic approach in the study. According to Adams, Hester, Bradley, Meyers, and Keating (2014), a universal definition of systems theory does not exist in the research community. Adams et al. developed and then proposed a construct of axioms of different fields in the form of a system. These axioms compose the characteristics of the systems construct. Adams et al. subsequently defined the various components and relationships in a real system construct: (a) a real system, which the examiner represents with propositions; (b) axioms, which support the proposals; and (c) a theory, which a scholar defines by the use of axioms. The multidisciplinary aspects of the systems theory developed by Adams et al. provided researchers with an example of the flexibility needed to apply systems thinking. For the same flexibility reasons, I added compliance theory as part of the conceptual framework of the study.

Included in the real system construct as an open system are various acts of Congress to increase transparency. The public's desire for transparency in government grew over the last decade and resulted in several bipartisan laws to improve openness. The legislation included the Federal Financial Improvement Act of 1999, the Federal Funding Accountability and Transparency Act of 2006, the Recovery Act of 2009, and the Improper Payments and Recovery Act of 2010 (GAO, 2013b). In 2012, Senator Mark Warner (D) and Congressman Darrel Issa (R) drafted a fifth statute: the Digital Accountability and Transparency Act (Morton-Huddleston, 2012). In May 2014, the act became law (Steinberg & Werfel, 2015).

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The daunting challenges facing grants administrators include problems with internal controls (Owens & Jessup, 2014). Part of the problem is a lack of coordination and cooperation among federal agencies, problems with compliance, and the lack of knowledge to improve internal control weaknesses (GAO, 2012b). In summary, all branches of the federal, state, and local governments want to increase oversight and accountability. To accomplish this, improvements to internal control mechanisms need more resources provided through open government initiatives (Evans & Campos, 2013).

Czerwinski, the former director of strategic issues at the GAO, led several government studies on grants administration, accountability, and oversight by the U.S. Congress. In doing so, he identified an important unintended consequence. The design of the grant or the business process for administering the grant has the unintended consequences of eroding the resources of the recipient, thereby diminishing their ability to achieve the objective of the grant (S. J. Czerwinski, personal communication, May 07, 2014). According to the Government Accountability Office (2014b), the business processes in grants administration lack efficiency and effectiveness. The move toward improving oversight, accountability, and transparency enjoys strong support in the U.S. Congress (Glover, 2013). But, lacks coordination between federal agencies, state agencies, and nonprofit organizations (GAO, 2014b).

The literature review contains scholarly peer reviewed references, research by the Government Accountability Office, and relevant information from U.S. government websites. I used the themes and subthemes in the literature review framework (see Figure 1) as the search terms for this study. I included Government Accountability Office studies

as part of the literature review because I believe that they are rigorously researched and written. The Government Accountability Office receives a peer review of their quality control systems every three years from an independent organization (GAO, 2016). Also, senior executives present the results of their research to the U.S. Congress. Authors of peer reviewed journal articles often cite Government Accountability Office studies in their research. For these reasons, I collected information and cited the studies as an authoritative source. The search process for government documents included the same keyword searches I used for peer reviewed articles. I searched the Walden University library database and Google Scholar, which included a link to the Walden University's library.
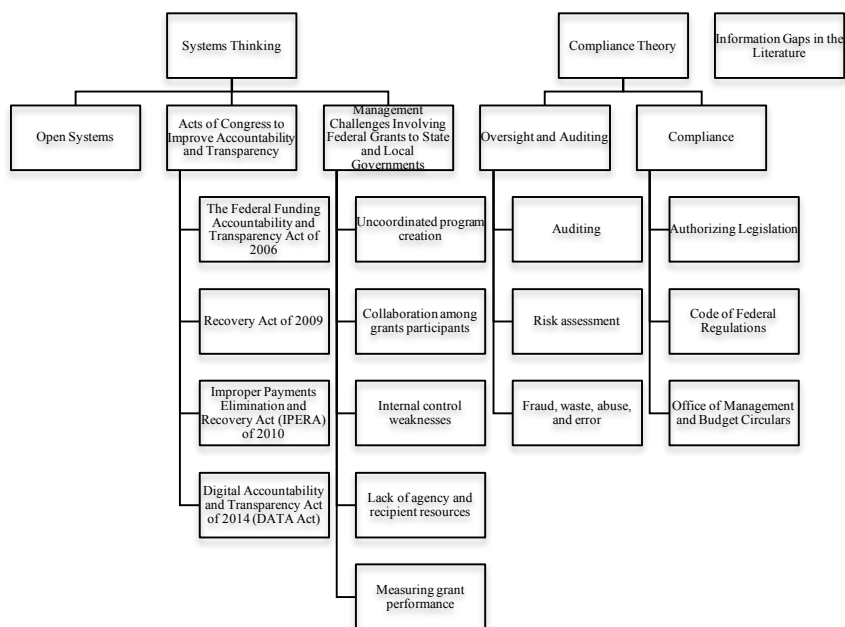
Figure 1. The literature review framework. Adapted from "An Overview of Federal Funding Levels and Selected Challenges," by the Government Accountability Office, 2012c, *GAO Reports*, 1-55. Copyright 2012 by the U.S. Government Accountability Office.

Table 1 includes a summary of the references incorporated in this literature review and in my overall study. I began the literature review with a discussion of the conceptual framework theories. After presenting my theoretical framework, I describe open systems in further detail. The remaining four categories in the literature review framework include acts of Congress to improve accountability and transparency, management challenges involving federal grants, oversight and auditing, and compliance. The framework design aided my decision to use systems thinking and compliance theories as part of the conceptual framework of this study.

Table 1

Summary of References Used in the Study

Reference type	Sources used in full doctoral study			Sources used in literature review		
	2016-2011	Pre 2011	2016-2011 Percentage of Total	2016-2011	Pre 2011	2016-2011 Percentage of Total
Peer reviewed article	185	27	87%	113	12	90%
Book	1	4	0%	0	3	0%
Doctoral dissertation	2	0	100%	0	0	
Websites	6	1	83%	0	0	0%
Government documents	11	1	92%	10	0	100%
Reference count total	205	35	85%	123	15	89%

Note. There were 240 references used in the study. Of those, 187 were peer reviewed and 5 years or less old; 113 were used in the review of the academic and professional literature.

Systems Thinking

I selected Systems Thinking as one of two conceptual framework theories for this study. In the late 1920s, von Bertalanffy wrote about the need to investigate all levels of a

biological system; he called the system organismic biology (von Bertalanffy, 1972). In General Systems Theory, the researcher examines the wholeness of systems, which applies to all areas of systems thinking (von Bertalanffy, 1972). Boulding (1950) added that General Systems Theory does not replace all common theories; instead, it provides an optimum level of generality for systems. Boulding noted that some theorists of general systems, however, do not always achieve the right level of abstraction. The author found von Bertalanffy's general systems theory to be a skeletal framework of systems where the scholar might organize knowledge in an orderly and coherent way. The framework allows the researcher flexibility to add or subtract parts of the whole that may or may not alter the overall system. Systems thinking also help to present the structure holistically. Patton (2002) found systems thinking to be fundamental to the holistic approach, which was becoming more prevalent in qualitative research. Recipients of federal awards must understand the whole grant system in terms of a lifecycle. For this reason, I chose systems thinking theory as a framework to the study.

Cox, Mills-Koonce, Propper, and Gariépy (2010) used a systems theory approach in the field of developmental psychology. Cox et al. attempted to articulate an understanding of how many people understand the development and the fundamental principles of systems theory. The authors posited that development happens over time. Because development involves active interaction with systems over multiple levels, it likely requires multiple disciplines. For example, a topic might incorporate both science and sociology fields. Cox et al. concluded that steps in developmental psychopathology

might reorganize over time through the involvement of various groups and subsequent interactions that result from their own cultural upbringings.

Adams, Hester, Bradley, Meyers, and Keating (2014) conducted a study to articulate a definition of General Systems Theory. The authors stated that there was no single consensus definition or applied science field. To define General Systems Theory, Adams et al. formed a systems construct through a set of axioms. They also theorized that general systems are inherently multidisciplinary. The authors set out to define a structure for contributions to knowledge and then develop taxonomies of functional science fields. Adams et al. seemed to accomplish this structure through the depiction of systems theory originating at the center of a circle with 42 disciplines and four levels of knowledge at different range rings. I found this portrayal of systems theory strongly supported my decision to use systems thinking as a conceptual framework because of the author's holistic approach to knowledge as it relates to a system as a whole.

Kitto (2014) argued that attempts to define General Systems Theory still leave room for further refinement. Kitto found the promising start of earlier systems thinking models had not produced the results some theorists had expected. Scholars of different disciplines struggled to describe the working parts and the relationships between their systems. A researcher might imagine the idea of a system; however, a system is not easy to formalize (Kitto, 2014). Kitto attempted to contextualize systems theory using quantum mathematical formulas. The author concluded that a contextualized systems approach might become a reality with more work.

To improve oversight, accountability, and transparency problems in grant management require a holistic approach to reducing improper payments. The application of General Systems Theory evolved into evaluation systems and the evaluation of systems (Cabrera, Colosi, & Lobdell (2008). Jun, Kim, and Lee (2011) found General Systems Theory includes human relationship to systems diagrams as part of system thinking. Jun et al. further articulated that systems thinking are a crucial function of the management field of study. Tennyson and Sisk (2011) added to systems thinking discussion by presenting a dynamic systems approach to instructional system design (ISD). Tennyson and Sisk posited the four previous instruction system designs used some form of dynamic or sequential theory. The sequential systems thinking approach by the researchers did not support the use of instruction system designs because the learning environment is more dynamic than ever before (Tennyson & Sisk, 2011).

Von Bertalanffy's General Systems Theory complements the general business problem, which focuses on the lack of knowledge and audit readiness on the part of some grant recipients for full life cycle grant management (Morton-Huddleston & Dixon, 2014). Essential improvements need to happen through change management in all stages of the grant management process (Morton-Huddleston, 2011). Agencies within federal, state, and local levels must make a stronger effort at improving internal communication and with the public.

The compliance strategies grant managers use to comply with requirements are open to change. That provides an opportunity for a researcher to examine the grant system as open. According to Flood (2010), von Bertalanffy developed open systems

theory to use practical and interactive criteria to study the whole. The theory was a change from studying just the elements as in the principles of reductionism (Flood, 2010). Von Bertalanffy simplified the open systems concept for other areas of science in what von Bertalanffy called General Systems Theory (Flood, 2010). The holistic analysis approach in this study required an examination of the whole and the parts of the whole.

Researchers at the Government Accountability Office (2011a) identified weaknesses in every stage of the grant life cycle process in the 20 federal agencies studied. The Government Accountability Office (2012c) identified five areas where problems in governance affect grant making agencies and grant recipients. These five areas include (a) lack of grant performance measures, (b) poor coordination between grants making agencies, (c) internal control weaknesses, and (d) lack of resources (GAO, 2012c). In Figure 2, the arrow outlined in red shows the uniform compliance requirements for federal awards, which were implemented to improve oversight, accountability, and management of grants (Federal Register, 2013). The other arrows outlined in black represent enacted legislation since 1999 to mandate a reduction of improper payments. Reducing improper payments lies at the center of the chart because that is the desired result.

Systems thinking is a useful theory in multiple subjects of study. Starting in the early 2000s, researchers in the knowledge management field began to use the systems thinking framework as a new way of organizing information (Rubenstein-Montano et al., 2001). A significant benefit of using this approach was making information available to internal and external organizations through the intranet or public facing websites.

Rubenstein-Montano et al. considered other theoretical approaches to knowledge management from the literature; each researcher adopted some form of systems thinking. The theories included the soft systems method, spiral dynamics, systems intervention methodology, and value systems theory. Rubenstein-Montano et al. determined the theoretical framework for knowledge management could develop from within the context of general systems thinking. Mulej et al. (2004) found it difficult for researchers to use von Bertalanffy's systems thinking because of the overspecialization of their topic. Mulej et al. suggested that the holism in von Bertalanffy's systems thinking depends on the decisions and action humans make in an environment of holism. The interaction and interdependencies in the grant lifecycle have a direct application to systems thinking theory.

Cabrera, Colosi, and Lobdell (2008) analyzed systems thinking in the context of analysis and program planning where the application of systems thinking evolved into the evaluation of systems. According to Cabrera et al., there are numerous examples of the popularity of systems thinking. There is confusion, however, as to the real implications of systems thinking in research. Cabrera found systems thinking to be conceptual in that individuals simply have to structure their thinking in the construct of the domain in use. I found that most proponents of systems thinking recommended a robust framework where all of the parts and their interactions are critical parts of the whole.

The contribution of systems thinking to research changed fundamentally since von Bertalanffy introduced General Systems Theory in 1950 (Mingers & White, 2010). Some examples included the change from reductionism to holism, the interactions of

parts rather than just the individual parts, the recognition of different levels of hierarchy, and the recognition of how people react to different situations. Finally, Mingers and White tacitly endorsed systems thinking as a viable theoretical approach in multiple fields of study because of the extensive literature available to support its contribution to research.

In a later study, Flood (2010) found the application of general systems thinking to action research. Flood noted a controversy that existed with building a holistic picture of social events without presenting them with the different pieces. In the sciences, researchers consider social phenomena a system (Flood, 2010). These are the interactions that take place in a social environment and the effects on the whole. Through systems thinking, the holistic picture might develop from a qualitative, quantitative, or mixed method study (Flood, 2010). I chose the qualitative method to get a rich description of strategies for federal award compliance because of the complexity of the grant lifecycle.

Other authors had the same argument. Hieronymi (2013) discovered that the increasing complexity of systems necessitates the application of General Systems Theory in the form of systems thinking. Hieronymi conducted a study on understanding the systems in science through a visual presentation of the function of systems. This could be a diagram of the system that shows the connecting parts. Hieronymi mapped the functions of systems in science into taxonomies, which included the different sciences. Similarly, Adams et al. (2014) depicted the fields of science as a foundation for understanding systems theory in science sectors. These areas included social science, humanities, natural science, engineering and technology, Medical and health sciences,

and agricultural sciences. The similarities between the two approaches show scholars and

practitioners continue to attempt to refine the definition of systems theory. Levin and

Schrum (2013) conducted a study to explore the possibilities of using the systems

thinking framework to describe how successful educational leaders leveraged technology

to improve their schools or school systems. Levin and Schrum found an understanding of

each of the parts operations was needed to understand the system as a whole entirely.

Levin and Schrum deemed it necessary to stop from time to time to present findings in

each part of the system. Finally, the researchers must realize that the changes must

happen nearly at the same time to achieve positive results (Levin & Schrum, 2013).

O'Kane (2014) attempted to use systems thinking in the concept development

process by applying it to complex, transportation designs. O'Kane found the process

cumbersome to the teams of designers because of the complexity of the systems, yet,

necessary for the design approach. O'Kane cited von Bertalanffy's emphasis on holism as

an important feature of alternative mobility systems. The author posited systems thinking

approach where the examiner understands the whole by examining the parts. O'Kane

concluded systems thinking provided mobility design teams with the tools to gain a

deeper understanding of all of the factors influencing the conceptual development

process. Gregory and Miller (2014) conducted an exploratory study to use systems

thinking as a curriculum at business schools because it provides a theoretical foundation

for discussions about sustainability. The authors acknowledged the challenge of design

and the content of the curriculum, yet believed in the potential of systems thinking utility.

Gregory and Miller concluded including systems thinking in a business curriculum is a significant challenge, however, a challenge worth the effort.

Open Systems

Von Bertalanffy (1950) defined open systems as a steady state where the component materials continuously flow in all phases of the system under assumed conditions. "A system is closed if no material enters or leaves it; it is open if there is import and export and, therefore, change of components" (von Bertalanffy, 1950, p. 23). An open system attains a steady state through this continuous flow and any reaction at any phase is irreversible (von Bertalanffy, 1950). According to Flood (2010), von Bertalanffy developed open systems theory to use practical and interactive criteria to study the whole, rather than the elements as in the principles of reductionism. Flood added von Bertalanffy simplified the open systems concept for other areas of science in what von Bertalanffy called General Systems Theory.

Janssen, Charalabidis, and Zuiderwijk (2012) suggested the transparency provided through open data to the public is a move to open systems. Janssen et al. found the majority of participants in their study believed open data will translate into improved government accountability and increase the trust of the people they serve. The authors went on to indicate myths exist as a barrier to open data because they originate from fictional sources and are, therefore, unproven. Janssen et al. concluded when viewing open data through a systems theory construct, and the result is a loss of control and answerability over the data.

Benton, González-Jurado, Beneit-Montesinos, and Fernández (2013) attempted to describe regulatory trends through an open systems theory viewpoint. Benton et al. identified seven key concepts from General Systems Theory characterized by Benton et al. explored each concept and how they might provide a description of regulatory trends. The authors concluded the seven concepts have applicability to describe data richly from the regulatory field of study.

The characteristics of an open system include the determination that the system is open or closed and has a reason for existence (Kast & Rosenzweig, 1972). A relationship exists from one part to another where an input causes a reaction and is the followed by an output (Loosemore & Cheung, 2015). Informed changes are made to improve the efficiency of the system through a feedback tool (Lee & Green, 2015). A state of equilibrium exists where the end state might occur from different paths (von Bertalanffy, 1972). Figure 2 depicts the conceptual framework to discover strategies for grant recipients to implement federal award compliance requirements for full life cycle grant management.
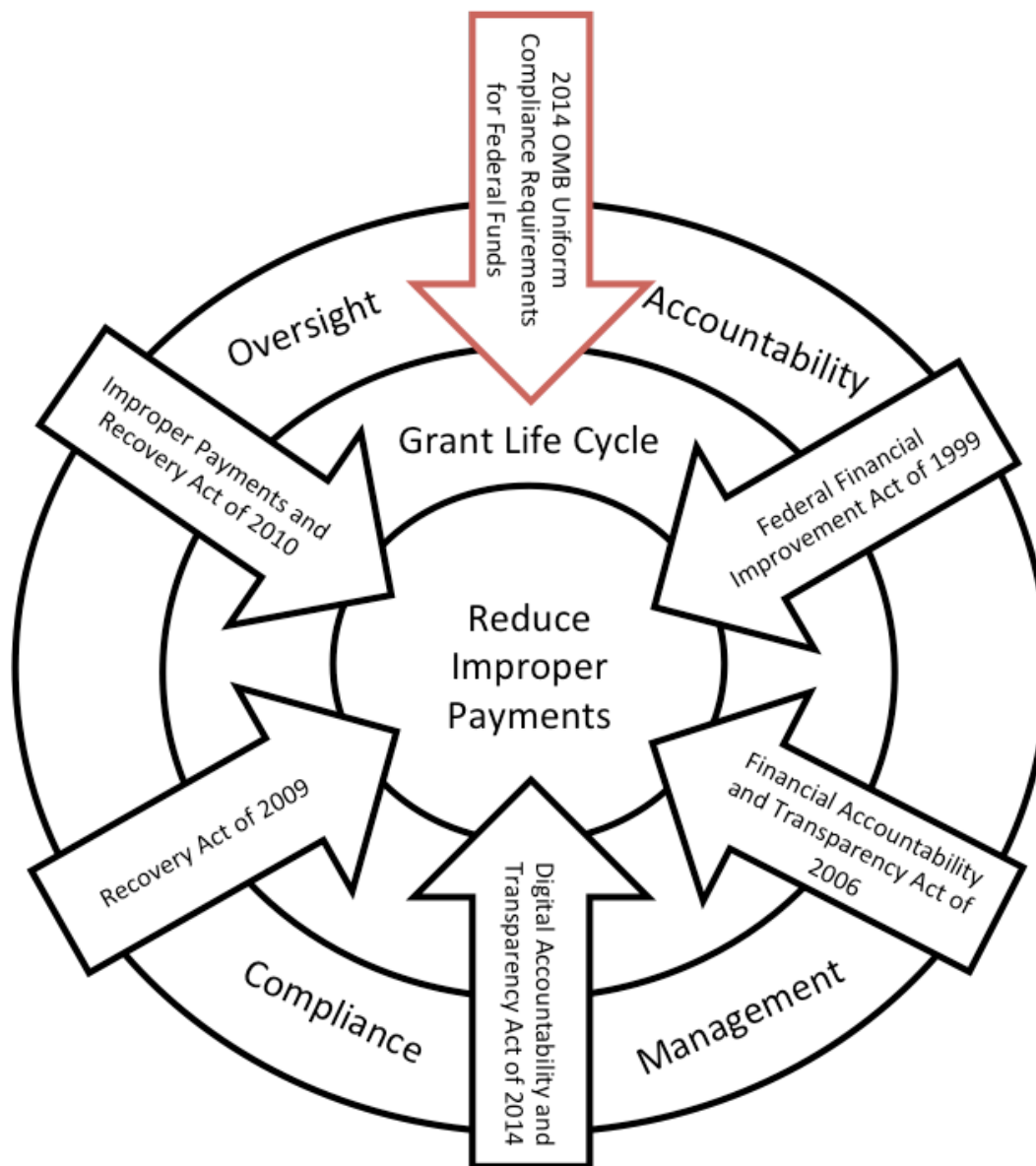
Figure 2. Open System framework depicting the problem of implementing Office of Management and Budget Uniform Compliance Requirements for Federal Awards. Adapted from "An Overview of Federal Funding Levels and Selected Challenges," by the Government Accountability Office, 2012c, *GAO Reports*, 1-55. Copyright 2012 by the U.S. Government Accountability Office.

Compliance Theory

Organizations use three forms of power to achieve results (Etzioni, 1975). The types of power include: (a) coercive power, which occurs in most organizations; (b)

remunerative, which, provides incentives to employees to produce compliant behavior; and (c) normative, which emphasized the moral approach to compliance (Chen, Ramamurthy, & Wen, 2012). The two types of involvement are either negative or positive, which vary from highly negative to highly positive. Scholars define coercive power by using different types and levels of force (Etzioni, 1975). The compensation a person receives is a remunerative kind of power an organization might use (Hoppner, Griffith, & Yeo, 2014). The compensation includes salary and wages offered or imposing fees and fines. The use of coercive power covers a range of influences from adverse outcomes to positive results and thus, described as one source of authority (Hoppner, Griffith, & Yeo, 2014). Compliance through coercive power is an essential aspect to the success of the organization (Etzioni, 1975). Gordon and Stichman (2015) studied the bases of power and its influence on rehabilitative and punishment ideologies at a correctional facility. Gordon and Stichman found the corrections officer to have less power and authority than in previous years, which negatively affected the officer's ability to enforce compliance. Compliance theory is applicable today through incentives and is dependent on leadership's ability to control the participant's compliance and contributions through those incentives (Gordon & Stichman, 2015). Most organizations, however, cannot rely on their employee's ability to determine their responsibilities without some form of inducement (Abdul-Ganiyu, 2015).

Etienne (2011) proposed a goal framing approach to compliance and how it might apply to various compliance theories. Etienne believed some compliance theorists failed to follow the multiplicity and heterogeneity of noncompliant behaviors. The result limited

the ability for researchers to elucidate deviations in compliance behavior over time. Ortlieb and Sieben (2012) combined *resource dependence theory* with compliance theory to develop a grouping of resource retention strategies. In their study, Ortlieb and Sieben used the multiplicity and heterogeneity approach to developing strategies for retention of key employees. The authors combined compliance and resource strategies in their interview questions to elicit rich descriptions from senior human resource positions. The use of experienced human resource professionals, who were retention critical, allowed for a wider investigation of resource and compliant strategies (Ortlieb & Sieben, 2012). Matheson (2012) combined *interaction ritual theory* (Collins, 1975) with compliance theory to determine whether a workers' psychological need derived from work content and whether social factors determined their motivations. The use of two or more theories in research was a viable approach to finding strategies to understand compliant behavior.

Acts of Congress to Improve Accountability and Transparency

Since the passage of the Federal Grant and Cooperative Agreement Act of 1977, the legislative branch passed many laws in the last 15 years to increase accountability, transparency and reduce improper payments. One of the first presidential orders issued by President Obama after he took office in 2009 was an executive order with the goal to reduce improper payments of federal spending (Executive Order No. 13,520, 2009). In 2010, the President's goal was to reduce improper payments by $50 billion in the next two years (Steinhoff, 2011).

Attmore (2011a) suggested public trust in government is low because elected officials do not provide the proper level of transparency. Attmore believed by providing

ground truth on fiscal policy is one way to gain public trust. Timely financial reports

from federal and state government agencies allow the public to make important life

decisions (Attmore, 2011b). In 2012, the authors of a study on the U.S. government's

attempt to build citizen trust through transparency produced disappointing results (Yusuf

& Jordan, 2015). The majority of citizens perceive the financial information reported

through e-reporting inaccurate because the government wastes too much of their tax

money (Yusuf & Jordan, 2015).

Steinhoff (2011) presented an overview of the challenges of reducing improper

payments in federal programs. Drawing on sources from the Office of Management and

Budget (OMB) and the Government Accountability Office, Steinhoff stated there are no

magical fixes to the problem. Phillips and Steinhoff (2012) explored the long term fiscal

challenges facing the federal government. With massive debt piling up, the next

generation will have a financial responsibility to deal with this debt under current laws.

Short term measures currently in place are not adequate for the long term. The

Government Accountability Office 75 year spending model called for a change in

spending policies or increased revenues by almost half combined with a 32% reduction in

noninterest expenditures (Phillips & Steinhoff, 2012). Phillips and Steinhoff recognized

the problem needed a strong, bipartisan plan to return the United States to economic

sustainability.

Lewis, Rominiecki, and Steinhoff (2012) investigated the electronic reporting and

its importance to improving oversight and accountability. Lewis et al. highlighted five

government websites critical to the open government. Three of the sites that relate more

to the public interest are USASpending.gov, Data.gov, and Recovery.gov (Lewis et al.,

2012). The websites serve as part of the development strategies for better accountability

and transparency.

   The Federal Funding Accountability and Transparency Act of 2006. Federal

Financial Improvement Act of 1999, otherwise referred to as Public Law 106-107,

initiated reduced burden for reporting requirements and improved the delivery of grant

programs to the public (Steinhoff, 2011). The law ceased effectiveness on November 20,

2007. Congress enacted the Federal Funding Accountability and Transparency Act

(FFATA) in 2006. The law required reporting on a searchable website like

USASpending.gov, which promotes social change through greater transparency with U.S.

citizens able to see the where the money goes (Morton-Huddleston, 2012). Transparency

leads to better accountability, but financial managers that believe too much unaudited

data exceeds our ability to make the information useful (Morehead & Murrin, 2012). At

first glance, the USASpending.gov website provides an unfettered look into how the

government spends the taxpayer money. With over 80 federal agencies posting financial

data to the searchable website, it is important to post complete and accurate data (GAO,

2012c). With this in mind, trust in government is at an all time low, and massive amounts

of unaudited data from the reporting agencies will not increase that trust (Steinhoff &

Carnahan, 2012). A review of the research showed that if the public knows the financial

data has gone through an audit process, the trust in government increases significantly

(Morehead & Murrin, 2012).

Charbonneau and Van Ryzin (2013) studied ways to determine reporting standards for public school performance. The authors explored 595 participants in different areas of elementary school proficiency in the past year. Charbonneau and Van Ryzin found the benchmark more comparable to the state averages and people do not view reporting standards equally. The use of a public facing website is an easy way to access the financial information on federal awards, the data the public sees is more compliance oriented than on how well the award is doing (Fadairo, Williams, & Maggio, 2015a). The possibility of transparency may be successful, but only if the information is understandable (Charbonneau & Van Ryzin, 2013).

Recovery Act of 2009. Near the end of 2008, the world economies struggled with recession due to a crisis in the global markets (Nummy, Levergood, & Hudson, 2011). Numerous countries instituted some form of a stimulus program to recover from the economic crisis (Nummy et al., 2011). In the United States, Congress enacted the American Recovery and Reinvestment Act of 2009, which included $787 billion in spending increases and tax cuts to stimulate the economy (Steinhoff & Posner, 2010). Of the $787 billion, grants to states and localities amounted to nearly $219 billion (GAO, 2014b). Stoney and Krawchencko (2012) compared stimulus programs between the Unites States (U.S.) and two other countries. Stoney and Krawchencko found the U.S. had the most stringent accountability and transparency mechanisms written into the law. State leaders increasingly face the challenge of budget constraints, and long term budget prospects appear to be unsustainable (Steinhoff & Weber, 2011). Transparency legislation requires federal and local government leaders to (a) increase transparency to

increase accountability (b) be participatory by asking for public input, and (c) be collaborative with other grant making agencies (Steinhoff & Posner, 2010).

In 2010, the Association of Government Accountants executive session met to discuss the impact of the transparency requirements in the Recovery Act of 2009 (Murrin & Sims, 2011). The Recovery Act's transparency provisions required recipient data be available to the public on the government's reporting website, Recovery.gov (Murrin & Sims). The challenge is how to present the data in a way easily digested by the public (Murrin & Sims, 2011). Another challenge is recipient ability to report data on time and accurately to the Recovery Act website (Maitner, 2010a). The Government Accountability Office reported recipients of Recovery Act funds did not report by the provisions of the law (Maitner, 2010a). The people at the agency responsible for the administration of the Recovery Act, the Department of Justice, recognized the lack of funding available for reporting functions (Maitner, 2010a). Subsequently, the federal government allowed some of the recipients to use Recovery Act funds to obtain the resources to perform reporting tasks; however, challenges persist (Maitner, 2010a). The large size of the program, inadequate resources, and additional reporting requirements did not give awarding agencies or recipients time to adjust in the required timeframe (Maitner, 2010a). The Government Accountability Office (2012b) identified the same challenges leading to improper payments along with internal control weaknesses and the lack of interagency coordination and cooperation.

The Government Accountability Office discovered best practices and lessons learned from Recovery Act spending through October 31, 2013 (GAO, 2014b).

According to the GAO (2014b), federal, state, and local grant administrators faced

significant challenges for providing oversight and accountability because of the speed of

the disbursed funding that totaled $219 billion. Figure 3 depicts Grant spending from

Recovery Act funds less Medicaid spending represented in entitlements.
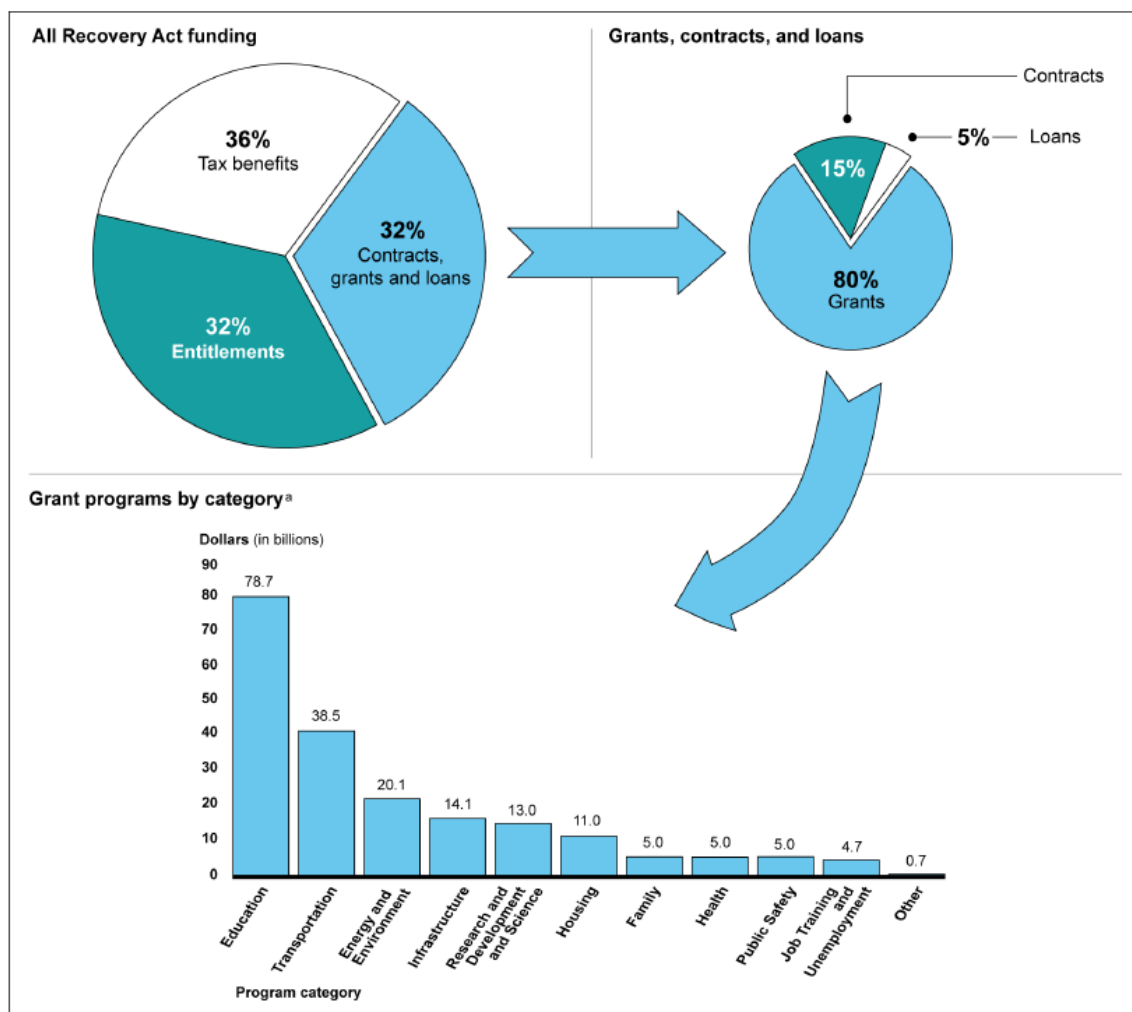
Figure 3. Overview of Recovery Act spending by program and category, as of October 31, 2013. Reprinted with permission from the Government Accountability Office. See Appendix D.

Improper Payments Elimination and Recovery Act (IPERA) of 2010. In 2010,

Congress enacted the Improper Payments and Recovery Act, a bipartisan law with the

goal of eliminating fraud, waste, abuse, and improper payments in federal grants

(Steinhoff, 2011). An amendment to the Improper Payments Information Act of 2002, the

law required the heads of federal agencies consider risk factors for outlays of $100

million and report the level of improper payments (Steinhoff & Carnahan, 2012). Another

Improper Payments and Recovery Act requirement was for agency heads to report

whether the lack of resources impeded their ability to report improper payments. In 2013,

the improper payment rate lowered by 3.53%, a reduction of 5.42% in federal agencies

since 2009 (Owens & Jessup, 2014). The improvements happened at different levels of

the grant management life cycle, which indicated there were improved business processes

at the agency level (Owens & Jessup, 2014).

   Digital Accountability and Transparency Act of 2014 (DATA Act). The

Digital Accountability and Transparency Act (2014), became public law 113-101 on May

9, 2014 (Steinberg & Werfel, 2015; see also S. Res. 994, 2014). Requirements of the law

include increasing reporting requirements of recipients at any tier using standard data

points (Steinhoff, Lewis, & Brown, 2015). The United States and other democratic

countries around the world adopted a more transparent posture by providing access to the

public through information technologies (IT) (Bertot, Jaeger, & Grimes, 2012). Bertot,

Jaeger, and Grimes (2012) found the use of information technology services to provide

transparency a significant challenge because of the multi layered complexities associated

with providing the: who, what, when, and where.

   The Digital Accountability and Transparency Act is a paradigm shift because of a

change in the reporting platform. Previously, the federal agencies that provided oversight

by collecting data requested recipients report back to them. The law shifts the reporting of grant funds by recipients to a government website open to the public through USAspending.gov (Morton-Huddleston, 2012). Through greater transparency, there is an incentive for recipients of funding to improve reporting responsibilities (Morton-Huddleston, 2012). Welch (2012) found citizen participation increased transparency, but transparency did not increase citizen participation. A recent study in the Netherlands (n=658) was unable to link transparency to citizen trust in government (Grimmelikhuijsen, 2012). Others have found government openness through citizen participation an important part of the trust in government because it allows the public to become part of policymaking (Fadairo, Williams, & Maggio, 2015a).

The Digital Accountability and Transparency Act requires the use of eXtensible Business Reporting Language (XBRL) to provide standardization of all reporting (Cable & Healy, 2013). The use of the eXtensible Business Reporting Language as the common language for all government financial information creates the ability to tag financial reports and make them searchable (Cable & Healy, 2013). Yoon, Zo, and Ciganek (2011) found the adoption of the technology in financial reporting provides a greater level of transparency in both the private industry and government. Cordery, Fowler, and Mustafa (2011) found businesses slow to adopt eXtensible Business Reporting Language technology despite the long term financial benefit. Yoon et al. concluded the use of the reporting language reduces information asymmetry, which gives the information a higher degree of value. Appendix H outlines the changes in accountability and transparency implemented by the Digital Accountability and Transparency Act.

Bertot, Jaeger, and Hansen (2012) explored the impact social media usage has on government policies. Bertot et al. highlighted a long list of gaps in the current government policies regarding social media. For example, the information published by the different government agencies need consistency, accuracy, and adherence by social media providers to government policy (Bertot, Jaeger, & 2012). The Digital Accountability and Transparency Act is an important step in the right direction to reduce improper payments. An observer must be careful not to assume transparency automatically improves compliance and the public's trust. Welch (2012) believed transparency is one side of accountability and participation the other; or how the government and public interact with each other.

Harder and Jordan (2013) explored Arkansas county governments websites to determine transparency. They found some lacking the resources to develop informational websites sufficiently to satisfy citizen perceived transparency. Harder and Jordan acknowledged the differences in the county government websites might be due to limited staffing. In 2007, the Island of Guam initiated a Citizen Centric Report (CCR) initiative to help its citizens decipher government financial reports (Crisostomo, 2012). Crisostomo (2012) highlighted a 2008 Association of Government Accountants survey, which found citizens believed government transparency to be an obligation. To keep the citizen centric report initiative on track, students from the University of Guam accounting program frequently communicated with government agencies resulting in a more effective launching of the report (Crisostomo, 2012). It is difficult to compare transparency efforts of Guam's citizen centric report initiative and that of local governments in the mainland

United States. In the final analysis, there is a need for more research on the growing trend of transparency across all levels of government.

According to Steinhoff, Lewis, and Brown (2015) the timeline to implement provisions of the Digital Accountability and Transparency Act included the establishment of data standards by May 2015. In addition, the law called for pilot programs for two years to reduce the burden on recipients of federal awards (Steinhoff, Lewis, & Brown, 2015). To implement the requirements of the law, Steinberg and Werfel (2015) recommended several steps: (a) identify data elements, which include dates, locations and unique identifiers; (b) selection of a platform capable of searching data, that all government agencies could use; (c) coordination among federal agencies, to ensure transparency on data coding makeup; (d) determine transaction codes used by federal agencies, which requires significant oversight; and (e) post collected from using tagged codes to USASpending.gov, which improved significantly from previous iterations.

The implementation of the Digital Accountability and Transparency Act does present obstacles to overcome including the identification of data elements, and surprisingly, the discomfort federal agencies have with transparency (Glenn, 2015a). Another problem is the capacity of federal agencies to implement the law's requirements (Allen, 2015). The assemblage of a tiger team, which could draw people from other areas of the government with specialized skill sets, is one way to overcome the lack of resources (Canavan & Schneider, 2015). The Digital Accountability and Transparency Act represents a paradigm shift of using big data to increase value as the sophistication of the analytical tools increase (Fitz, Hauer III, & Steinhoff, 2015). When fully

implemented, federal, state and local government managers will find the law provided

decisional information not previously available (Gregg, 2015). Gregg (2015) cautioned,

however, managers should use the fresh information to evaluate the current conduct of

financial management and then implement fundamental change.

Management Challenges Involving Federal Grants to State and Local Governments

Administrators and managers of local government are responsible to locally

elected officials while federal agencies are responsible to Congress and the President

(Morton-Huddleston & Dixon, 2014). Prime recipients at the state and local government

follow policies established by the federal granting agency and a common set of

government rules and regulations (Lopez & Peters, 2010). Figure 4 is an example of how

government grants pass from grant makers to prime recipients, and then to subrecipients.
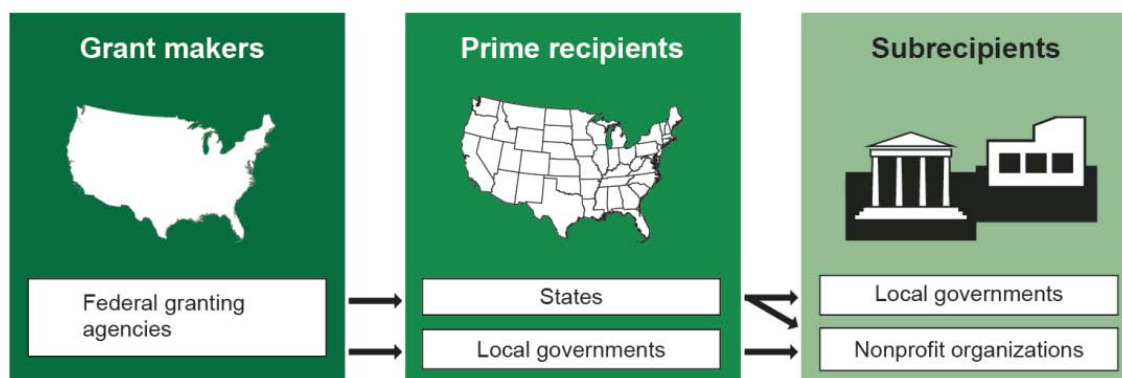
Source: GAO analysis of grant processes; and Art Explosion clip-art.

Figure 4. An example of how federal funds flow through primary Grant recipients to Subrecipients. Reprinted with permission from the GAO (see Appendix D).

The states and local governments also act as a pass through entity. Pass through

entities serve as both prime recipients and grantors at the same time (GAO, 2013c). In

2013, the GAO studied the pass through disbursement practices of Illinois,

Massachusetts, and Tennessee and found overall; they provided acceptable oversight and

administration of disbursed funds (GAO, 2013c). The U.S. Congress passed Public Law

106-107 in 1999 consolidated the compliance requirements for grants into one policy

document under a single title in the Code of Federal Regulations (CFR) (GAO, 2012b).

According to the GAO (2012b), the reforms made it easier for states to comply with

reporting requirements and attain audit readiness, yet the problem of management and

interagency coordination remains. The grant life cycle for federal grant making agencies

and the grant recipients in Figure 5 represent the process from pre award through final

closeout. Prospective grant recipients from states, local governments, and nonprofits

apply for grant opportunities announced by the federal government.
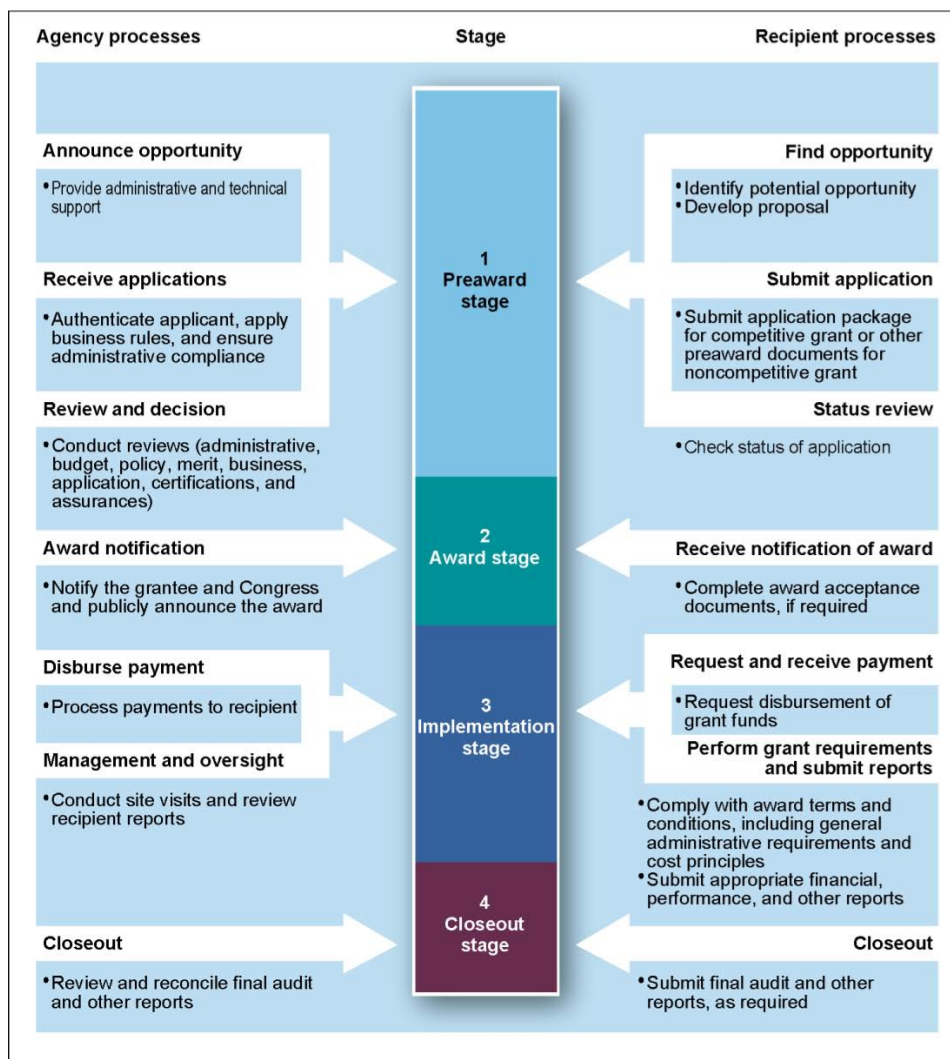
Source: GAO.

Figure 5. Grant Life Cycle of Federal Grant Making Agency and Grant Recipient. Reprinted with permission from the GAO. See Appendix D.

Uncoordinated program creation. As Congress enacts authorizing legislation for individual grant programs, the law may inadvertently include conflicting compliance requirements with existing uniform compliance requirements (GAO, 2013b). Congress creates many grant programs that may be duplicative of existing legislation. According to Steinhoff (2011), federal agencies need better cooperation and buy in across agencies because federal funds provided to state, local and nonprofit exceed $500 billion.

Collaboration among grants participants. Steinhoff (2011) found the combination of President Obama's 2009 Executive Order to reduce improper payments and the enactment of the Improper Payments and Recovery Act proved to key stakeholders the benefit of better collaboration. The distribution of grants is a complex undertaking involving multiple parties. Grant participants might include (a) U.S. Government, a federal agency who is the grantor; (b) state governments, a recipient of a federal grant; (c) local governments, a subrecipient of a federal grant; (d) nonprofit organizations, recipient or subrecipient of a federal grant (see Figure 4; see also GAO, 2012c). Sims and Sossei (2012) suggested intergovernmental agencies improve collaboration and explore shared services for data analytics. Skertich, Johnson, and Comfort (2012) found the call for more transparency and accountability strained the resources of federal agencies because of the need for better collaboration. The organizational cultures and money flow at each federal agency is different (Skertich et al., 2012).

Internal control weaknesses. In 2002, Congress enacted the Improper Payments Information Act. The Office of Management and Budget implemented Circular A-123 to create a framework to achieve demonstrable progress in mitigating improper payments (Morton-Huddleston, 2010). The rules require executive management to be aware of the organization's internal control weaknesses in financial and program risks (Glenn, 2015b). Congress intended the Improper Payments and Recovery Act required federal agencies report internal control problems and how much was contributed to improper payments. The Sarbanes-Oxley Act (SOX) passed in 2002 included language on self reporting of

internal control weaknesses (Rice, Weber, & Biyu, 2015). Several studies (GAO, 2011a, 2011c, 2012b, & 2013c) identified internal control weaknesses in federal agencies, state and local governments, and nonprofits. Rice, Weber and Biyu (2015) found inconsistencies of penalties for non reporting of internal control weaknesses required by SOX. Consequently, there is a lack of incentive for firms to report weaknesses.

In 2006, the Department of Homeland Security (DHS) began an initiative to improve business processes by strengthening internal controls within the agency (Norquist, Sherry, Bedker, & Janssen, 2014). The DHS progressed to clean financial statements because of the organization's focus on controls, risk assessment and the balance sheet (Norquist et al., 2014). Norquist, Sherry, Bedker, and Janssen (2014) posited focusing on the balance sheet first was the most significant reason for clean financial statements. When organizations have an effective internal control system in place, financial reporting becomes more accurate (Munsif, Raghunandan, & Rama, 2013). Internal control weaknesses affect private industry and government.

Hammersley, Myers, and Zhou (2012) found companies with pervasive, material weaknesses discovered during previous audits, are less likely to remediate their problems and more likely to face adverse consequences. An important aspect of the remediation process is the cost benefit analysis of improving the material weaknesses. Klamm, Kobelsky, and Watson (2012) stated the severity of material control weaknesses is of high concern to stakeholders because of the remediation costs.

Petrovits, Shakespeare, and Shih (2011) discovered internal control problems in nonprofit organizations. According to Petrovits et al., nonprofits struggle with

compliance due to lack of resources. Because of this, internal control deficiencies weaken their ability to meet their fiduciary responsibilities (Petrovits, Shakespeare, & Shih, 2011).

Lack of agency and recipient resources. The Improper Payments and Recovery Act included measures to require the heads of Federal agencies to report when a lack of resources contributed to improper payments. Several GAO studies (GAO, 2011a, 2011b, 2011c, 2014b) all reported a lack of capacity to improve oversight and accountability. There is a large engagement that goes on between federal agencies that provide grant money and with states and nonprofit organizations that now have to report how they spent the grant money (S. J. Czerwinski, personal communication, May 20, 2012).

Bosso, DeLeo, and Kay (2011) explored how government conducts oversight in recent times with a lack of resources. Bosso et al. defined capacity simply as having the resources to achieve a desired goal. Of course, federal agencies, local governments and nonprofits all have the goal of providing the proper oversight and fiduciary responsibility. The current political environment makes a decision on proper funding for oversight mechanisms unlikely (Bosso, DeLeo, & Kay, 2011). Congress historically over the last decade presented a united front on oversight and accountability (Phillips & Steinhoff, 2012). Sims and Sossei (2012) found federal agencies cited a lack of resources and staffing to achieve coordinated data analytics and better collaboration among intergovernmental agencies. The federal agencies interviewed for their study questioned what system to use to analyze the data.

Measuring grant performance. The job of measuring grant performance is a difficult one for government agencies. In many cases, the measures do not have the fundamental attributes needed to be successful (GAO, 2012b). Greiling and Halachmi (2013) introduced five articles about accountability in a symposium format. The authors highlighted the increased demand for accountability in government and the failure to measure improved performance. The five articles focused on functional relationships, innovations, technology, citizen participation, and standards board. Greiling and Halachmi did not conduct a study but put an important symposium of articles together that defined the performance measures in modern terms. Adams (2012) suggested some of the governance measures put in place such as Sarbanes Oxley Act of 2002 and Dodd-Frank Act of 2010 actually hurt the ability to provide successful oversight of financial performance.

Oversight and Auditing

The federal government awarded over $600 billion to state and local governments in fiscal year 2011 for the public good (GAO, 2012b). For example, procurement using grant dollars support business investment by issuing contracts to entities such as architectural and construction firms to build roads, bridges, and other public infrastructures (GAO, 2014a). Oliver, the Director of the Maryland Governors Grants Office and past president of the National Grants Management Association described other examples of how states and local governments use grant monies. They included the acquisition of broadband technology in underserved areas, foster care service, homeland defense, and firefighting equipment. Federal grants fund infrastructure, education, and

medical care, which are some of the larger grant awards. Oversight and auditing help to ensure the government and recipients spend the money by the law. The overall quality of government audits suffers because auditors need an understanding of the many working parts in government spending (Ghany, 2012). Ghany (2012) suggested external government auditors do not understand the procurement and internal control processes. Ghany found government audits need an engagement review for every audit and recommended the Independent Referencing Review (IRR) perform the engagement review responsibility. The expectations of external auditors increased along with the push to reduce improper payments (Frank & Rasa, 2014). Government managers look to external auditors more often because of fiscal constraints placed on government operations, along with the interdependence between federal agencies (Frank & Rasa, 2014).

Auditing. In 2002, the Sarbanes-Oxley Act mandated internal controls come under the controls of a committee on oversight and auditing (Abbott, Parker, & Peters, 2012). The purpose of an audit is to attest the accuracy of audit reporting as required by regulation or law (Budescu, Peecher, & Solomon, 2012). Audit findings are typically a pass or fail result derived from a standardized audit report (Mock et al., 2013). The users of audit data, however, have an interest in other areas such as risk or material weaknesses (Mock et al., 2013). In the U.S. Federal Government, agencies go through the data and work with the grant recipients to ensure precise data. Steinberg (2012) posited the reporting model created by the Federal Accounting Standards Advisory Board (FASAB) needed significant updating. Adding the electronic reporting element might enhance the

reporting requirement; yet, leave unanswered questions of the FASAB boundaries in electronic reporting (Steinberg, 2012).

Maitner (2011) observed the federal government's eagerness to use Cloud computing as part of their information technology management plan. Maitner pondered the effect on federal financial management if the financial reporting function moves to the Cloud. Maitner suggested the U.S. government could enjoy significant cost savings by adopting the best practices of the private industry, but conduct a thorough cost versus benefits analysis.

In 2012, the Association of Government Accountants published a study on the electronic reporting opportunities for government financial reporting. According to Morehead and Murrin (2012), over 96 percent of the respondents want electronic access and think the government has the responsibility to provide it to them. Citizens who deal with the efficiency of private sector Internet services expect the same from the government (Irani et al., 2012). Most auditors view electronic reporting as the preferred way to publish government financial information (Allen, 2012). Transparency might breed inconsistencies in the data, which might bring up repeated challenges to the way the government does business (Halachmi & Greiling, 2013). The opportunity for error increases as the data volume increases (Lawton, 2012). The government must incorporate the best practices of private industry as electronic reporting becomes more widespread and implement the best strategies for successful reporting (Irani et al., 2012). The Association of Government Accountants recognized in their 2012 electronic reporting report that users of the data need to understand what they are seeing, and the information

must mean something to them (Allen, 2013; Yusuf & Jordan, 2012). Wilson (2014)

posited e-government's potential ability to deliver low cost, time saving services to the

public at large could help those at the lower income scale. Wilson found the need for

more research on how government information and communication technologies affect

citizens with low income.

Yusuf and Jordan (2012) explored the process of obtaining citizen input as a tool

for transparency and accountability. Using a qualitative research methodology, Yusuf and

Jordan convened focus groups to discuss the group's understanding of government

information, its value and relevance to them, and how to access the information. In the

final analysis, the authors found that an effective citizen centric report be (a) brief and

easy to read, (b) easily accessible, (c) well timed, (d) important to the general public, and

(e) publicly available.

Elmore (2013) discussed the trust Americans have in federal, state, and local

governments. Elmore suggested internal auditors are in a great position to build trust, by

promoting ethics. Trust through transparency is a popular language in the literature, but

the government has difficulty implementing transparency initiatives. Like other subject

matter experts in government accounting and governance, Elmore believed a transparent

and accountable government wins the public's trust. Despite the fact that trust and e-

reporting are trendy today, researchers have difficulty tying the level of public trust to e-

government initiatives. For example, Horsburgh, Goldfinch, and Gauld (2011) were

unable to find a relationship between citizen trust and e-reporting in Australia and New

Zealand. Grimmelikhuijsen (2012) concluded the same in the Netherlands study but

found trust in government impact how citizens perceive government in a personal sense. An observer might reasonably conclude then that open government might still lead to an increase in public trust.

Glover (2013) described the benefits of using audit software solutions to reduce improper payments per the Improper Payments Elimination and Recovery Act of 2010. Glover suggested that simplifying the law's compliance might prevent future losses. Glover cited the Office of Management and Budget statistic that the government loses more than $100 billion each year due to improper payments. Glover suggested four approaches to prevent future losses. The four methods were (a) performing a recapture audit (b) recovering overpayments (c) reporting results, and (d) improving the system.

Frank and Rasa (2014) discussed a new external auditing initiative called the Cooperative Audit Resolution and Oversight Initiative (CAROI) model. Based on the Generally Accepted Auditing Standards (GAAS), the audit resolution model is a way for managers and auditors to work together to improve audit findings in federal agencies (Frank & Rasa, 2014). Frank and Rasa found the model adaptable to a wide spectrum of federal agency programs.

Lewis, Neiberline, and Steinhoff (2014) proposed two scenarios where an organization might use modern technology, specifically, financial and business systems as an advantage for auditing. Scenario one is the data collection process and scenario two tests journal entries for reconciliation. In the two scenarios, the authors compared the traditional approach against a computer assisted, digital auditing approach to highlight the viability of using modern technology. Lewis et al. concluded the federal government

must move in the direction of evolving technologies to modern digital auditing systems.

Federal agencies need to become more efficient in using the information that is available

to them when performing an audit instead of trying build new databases through a

meticulous approach that eats up time and money (Miller, 2015).

A-133 single audit compliance requirements. Passed in 1984, the Single Audit

Act required grant recipients who expend $100,000 or more in one year require a single

audit to determine compliance (Lopez & Peters, 2010). The threshold increased to

$500,000 in 2004. The Office of Management and Budget Circular No. A-133 provides

overall direction for federal awarding agencies, primary recipients, and the audit

requirements for grantees (GAO, 2013b). Lopez and Peters (2010) found A-133 and

Sarbanes Oxley (SOX) alike in terms of reporting requirements. The publicly available

A-133 single audits could increase the ability for businesses to find internal control

weaknesses (Kull, 2010).

According to Steinhoff and Carnahan (2012), forensic auditing might be the first

line of defense against fraud, waste, and abuse. Kull (2010) suggested the A-133 Single

Audit System use open standards such as the eXtensible business reporting language. The

use of the language creates a more accessible database to process reports, making them a

more useful transparent auditing tool. Chen (2012) found putting government financial

reporting requirements in eXtensible business reporting language format increases

transparency and the usefulness of the data communicated from one entity to the other.

Pryor (2013) studied how a modified approach to reporting the cost of

infrastructure using a depreciation method instead. Statement 34 permitted a modified

approach providing the local government establish a minimum condition level for each infrastructure asset. Pryor obtained financial reports from over 200 cities to obtain and found just nine using the modified approach. The implications for governmental accounting standard setters were the need for information to assess the cost to providing governmental services. Pryor found most cities report substantial gaps between needed and actual spending.

Crisostomo (2014) explored Guam's finances from 2009 to 2012 and the importance of the steady stream of federal funds through grants and contracts. Crisostomo highlighted the measures taken to balance Guam's budget including 2009 austerity measures, 3% appropriation restriction for departments and agencies for FY10 and FY11, and others. Crisostomo concluded governments should move toward shared IT services, which could lead to improvements in efficiency and reduce costs.

Risk Assessment. Apostolou and Apostolou (2012) surveyed 5,750 participants analyzing 360 fraud cases and found growing worldwide fraud and corruption. Consequently, the U.S. government dedicated considerable resources to reversing the trend (Apostolou & Apostolou, 2012). The authors concluded by stating the importance of risk assessment as part of the fight against fraud. Equally important, federal agencies need to improve risk assessment of grant recipients through the use of risk based assessment programs (GAO, 2012b). The GAO (2013c) found state and local governments that award pass through funds to subrecipients should also conduct risk assessments.

Fraud, waste, abuse, and error. Kassem and Higson (2012) highlighted the different fraud models in the literature. For example, Cressey's Fraud Triangle Theory included pressure, opportunity and rationalization as the three elements needed to commit fraud (as cited in Kassem and Higson). Kassem and Higson found observers previously overlooked a person's ability to commit fraud. Fraud in government grants takes on different forms. Steinhoff and Posner (2010) asserted four implementation challenges of the Recovery Act of 2009 might mitigate potential fraud by (1) balancing programs that conflict with one another, (2) ensuring rapid implementation of Recovery Act programs, (3) properly planning programs and executing the budget, and (4) managing risk.

One of the challenges grant managers face is the timeliness of grant closeouts by federal agencies (GAO, 2012a). For example, proper closeout procedures include the return of unused grants, which must be de-obligated to prevent fraud (GAO, 2012b, 2012c). If the closeout does not occur, recipients have the ability to continue drawing from a closed grant account, which violates the grant agreement. Steinhoff and Weber (2011) found the potential of an Enterprise Risk Management program reinforce fraud risk programs. The lack of ability to strengthen organizationally and manage internal control processes lead to waste (Morton-Huddleston, 2011).

Steinhoff and Carnahan (2012) found data mining if properly implemented, provides information to ensure internal controls work as designed under policy regulations. One benefit from data mining is the feedback on internal controls to determine whether they operate in the proper manner. With automated continuous feedback, auditing benefits go beyond the traditional methods of identifying fraud, waste,

and abuse. Steinhoff and Carnahan focused on the ten steps for implementing a data mining program. The fiscal challenges of today demand the use of available tools to provide the best results.

In 2013, the Office of Management and Budget found over $100 billion in improper payments were likely due to error and fraud (Kalustyan, 2014). Kalustyan (2014) stated most of the improper payments are because of unintentional errors while a large amount is because of overpayment. According to Kalustyan, the overpayment constitutes fraud because it was intentional. The government has turned to web based technology to combat fraud through an enterprise wide, integrated solution (Kalustyan, 2014).

Donohue (2015) recommended integrity monitors to oversee compliance requirements of federal awards as critical to preventing fraud, waste, and abuse. Integrity monitors help government managers determine whether recipients of federal grants comply with federal, state, and local laws. Integrity monitors also contribute to determining the effectiveness of internal controls (Donohue, 2015). Another way to prevent fraud, waste, and abuse is through predictive analytics. In the federal government, the process occurs through structured modeling while the private sector uses a variety of predictive modeling systems (Lee, 2015). The predictive process evolves continuously to adapt to the changing environment. For example, new information might change the modeling so new data would replace old data in an iterative process to combat fraud, waste and abuse (Lee, 2015). States and local governments benefit from data analytics through tailored reporting based on individuals to groups and families (Mazur,

2015). Mazur (2015) believed trust in government increases when citizens perceive the government provides sustained programs and services on behalf of the citizens. Finally, data analytics provides leaders with decision making responsibility the tools to improve business processes and reduce improper payments from fraud, waste and abuse (Fadairo, Williams, & Maggio, 2015b)

Compliance

Bonson, Torres, Royo, and Flores (2012) studied 75 European Union governments and could not determine whether new Internet technologies like Web 2.0 and social networking sites improved transparency. The results of their study revealed significant diversity. The infancy of technology and low cost of getting the word out to citizens could lead to more openness (Bonson, Torres, Royo, & Flores, 2012). It is logical to assume that transparency could lead to a better cooperation and collaboration between government and nongovernment agencies.

Schneider, Sheikh, and Simione (2012) explored the option of an expanded role for auditors to include the risk assessment. Adding risk assessment using Key Risk Indicators (KRIs) to what auditors already use, which is Key Performance Indicators (KPIs) takes on a more holistic approach to auditing (Schneider, Sheikh, & Simione, 2012). Schneider et al. believed integrating an auditor's risk assessment skills with financial management allows for a more holistic contribution to the organization.

It is important for compliance officers to understand federal and state laws and their effect on using big data (Habte, Howell, Warren, Freerks, & Millendorf, 2015). Big data is mammoth volumes of information organizations use to collect, process and

interpret for different purposes (Habte, Howell, Warren, Freerks, & Millendorf, 2015).

Being able to manage large amounts of data and use structured and unstructured data is

key to gaining a competitive advantage in business (Assuncao, Calheiros, Bianchi, Netto,

& Buyya, 2015). The availability of big data continues to grow with the advent of

modern technologies where we have the ability to accommodate large datasets and run

complicated computations on the datasets (Kambatla, Kollias, Kumar, & Grama, 2014).

The accessibility of the data through the Internet can be a challenge for compliance

officers trying to follow compliance laws. The other challenges include (a) capturing the

data, (b), storing the data, (c) searchable data, (d) shareable data, (e), analysis, and (f)

displaying the data (Chen & Zhang, 2014).

       Authorizing Legislation. Congress authorizes legislation for federal grant funded

programs (Wilson, 2014). The legislation may contain additional compliance

requirements other than the generally accepted compliance requirements found in the

Code of Federal Regulations and Office of Management and Budget Circulars (Wilson,

2014). On occasion, these additional requirements may conflict with the Code of Federal

Regulations and/or Office of Management and Budget Circulars (GAO, 2013a). In such

case, the authorizing legislation takes precedence. In the grant field, practitioners use the

term prevailing legislation (M. E. Oliver, personal communication, April 19, 2015). Part

of the problem with improper payments is the duplication of congressionally appropriated

programs (GAO, 2013a).

       Code of Federal Regulations. The Code of Federal Regulations is the codebook

for agencies and departments of the Federal Government to follow codified rules on

program implementation (U.S. GPO, 2014). U.S. government federal grants vary

depending on the authorizing legislation, the Code of Federal Regulations for the

awarding agency, and treatment under the Uniform Guidance for grants management

found at Title 2 of the Code of Federal Regulations (GAO, 2012b). Beauchamp (2011)

posited government applies CFR requirements commonly to human subjects even if

differences exist.

Office of Management and Budget Circulars. The Office of Management and

Budget put forth circulars to outline the compliance and requirements for grants. The

1984 Single Audit Act required an annual single audit for recipients who spend more than

$500,000 (Lopez & Peters, 2010). Circular A-133 Audits of States, Local Governments,

and Nonprofit Organizations, outline the requirements for the audit. The A-133 Audits

are the cornerstone of oversight for federal assistance (Kull, 2010). Circular A-127 tasks

federal agencies to keep accurate and timely financial information through competent

business systems (Maitner, 2010b). Maitner (2010b) pointed out the requirement to

update business systems are part of a larger problem with not only modernization but also

their integration.

The Office of Management and Budget issued Uniform Guidance in 2013, which

consolidated eight other guidance documents into one (Federal Register, 2013). The

guidance, effective December 26, 2014, for grant recipients, establishes uniform

requirements for cost principles and single audits (Federal Register, 2013). Also, to

reduce the administrative burden on recipients, the guidance included streamlined

requirements to improve the efficiency and effectiveness of internal controls while

participating in the grant life cycle (Federal Register, 2013). The Uniform Guidance
included several reforms such as a) uniform requirements for the preaward and postaward
stages b) guidance to provide information to the general public c) uniform cost principles,
and d) single audit requirements and reporting policies for audit results (Federal Register,
2013).

Martin (2014) suggested at least one human resource staff member must
understand the compliance rules because of the focus on accountability. Martin found the
issuance of the guidance just a start and that a significant transformation will happen over
the next two to three years. Martin posited the relationship between recipients and pass
through entities must change because of the new focus on performance accountability.
According to Morton-Huddleston and Dixon (2014), the Office of Management and
Budget rules should help to eliminate duplication and information conflicts. Morton-
Huddleston and Dixon posited the rules have the benefit of improving accountability and
post award administration while standardizing data elements of the grant life cycle for
federal grantmaking agencies.

Information Gaps in the Literature

Information gaps exist in the area of strategies for implementing federal award
compliance requirements in scholarly research. The compliance requirements became
mandatory for grant recipients December 23, 2014. Prior the publishing of this
dissertation, there was scant literature on implementing the compliance standards.
Notwithstanding, the Government Accountability Office (GAO) has done many studies
in the area of federal award compliance and oversight. Senior government officials

testified before Congress using Government Accountability Office reports, which culminated from extensive research conducted by competent researchers. Although the reports do not go through the refereeing process, scholars might consider them at the same level as peer reviewed research. The peer reviewed journal articles relating to federal award compliance and oversight usually referenced Government Accountability Office studies as authoritative. For this reason, and to help fill the information gap, I included the reports as part of the literature review.

The framework for the literature review aligned with von Bertalanffy's General Systems Theory, which was the conceptual framework for the study. I searched the literature from a holistic point of view, recognizing the complex nature of federal grants. I found information and data gaps in nearly all areas. The significant gaps existed in the management and administration of grants and grant compliance. The GAO identified weaknesses in these two areas (GAO, 2011c, 2013b). Scholarly works abound with research on private sector problems in governance, management, internal controls, and audit processes. The Association of Government Accountants produced numerous peer reviewed articles for the study because their interests directly relate to the problem of improper payments. The Association of Government Accountants dedicated their Summer 2014 journal to the subject of improper payments. Seven articles contributed to the literature review and study. Other peer reviewed journals with topics in governing did not produce extensive literature in the area of grants management.

Summary and Transition

In the last decade, there has been a renewed energy in government to increase oversight and accountability. The level of improper payments grew from $45 billion in 2004 (Button, Gee, & Brooks, 2012) to its highest level of $125 billion in 2010 (Steinhoff, 2011). With a federal outlay of over $600 billion from the 2009 Recovery Act (GAO 2012b), Congress, and the executive branch started a bipartisan effort to reduce improper payments with goals to improve oversight, transparency, and accountability (Kamensky, 2011). Some reforms included the 2011 Council on Financial Assistance Reform (COFAR), which replaced outdated governance initiatives like the Grants Policy Committee (GPC) and Grants Executive Board (GEB) (GAO, 2013b). As a result, attention to the problem helped reduce improper grant payments by $17 billion from 2010 to 2012. In December 2013, the controller at the OFFICE OF MANAGEMENT AND BUDGET registered the uniform compliance with streamlined requirements to help reduce the administrative burden at the grant recipient level (Federal Register, 2013). One of the stated goals is to have better oversight of grant funds and to improve the efficiency and effectiveness of entities participating in the grant life cycle (Federal Register, 2013). According to the GAO (2013b), federal agencies need more improvement in planning, coordination, and communication.

The complexity of the grant life cycle required a conceptual framework designed to investigate the problem of recipients' ability to comply with federal rules for federal awards. Ludwig von Bertalanffy's theory of systems thinking supports the study because all aspects affecting the research problem are relevant to the inquiry. The design structure

of the literature review reflected a holistic approach. After the review, a gap in the literature specific to grants management surfaced among peer reviewed investigation and independent government research organizations such as the Government Accountability Office (GAO) and Office of Management and Budget. Many of the key peer reviewed journals came from Professional associations such as the Association of Government Accountants, the Institute of Internal Auditors, and the American Institute of CPAs (AICPA). The journal authors provided sound research and inquiry into compliance requirements for federal awards and the government's oversight and accountability.

Beginning with a restatement of the purpose, Section 2 included a description of the project in detail and my role as the researcher and collection instrument. A rich description of the participant selection process included (a) strategies to obtain access to the participants by establishing a relationship through professional contacts, (b) the selection of 20 purposefully selected professionals, and (c) measures to ensure ethical protection and retention of data. The remainder of Section 2 comprised the research method, design, and techniques for collecting, organizing, and analyzing the data. Finally, Section 2 concluded with credibility and dependability processes and transition summary.

Section 2: The Project

The management of grant awards continues to be a problem. A significant increase of improper payments of grants, contracts, and loans occurred from $72 billion in the fiscal year 2008 (Steinhoff, 2011) to $124 billion in the fiscal year 2014 (Jacob, 2015). Traditional accountability methods do not provide the transparency demanded by citizens who want to know how Congress spends their tax dollars (Attmore, 2011a). The misuse of public funds was a major focus of President Obama and the 113th Congress (Glover, 2013). According to the Federal Register (2013), OFFICE OF MANAGEMENT AND BUDGET published Uniform Guidance for federal awards on December 26, 2013. The guidance from the Controller streamlines federal award compliance requirements for administration, cost principles, and auditing by combining eight circulars into one (Federal Register, 2013). Some of the important objectives of the Uniform Guidance were to reform the grantmaking process in federal agencies and the financial management of federal awards at the recipient level (Federal Register, 2013). Per the Federal Register, the audit requirements for the new standards began on December 26, 2014 with enforcement of the rules beginning one year later.

Martin (2014) found that OFFICE OF MANAGEMENT AND BUDGET guidance signifies the biggest change in federal grants in the last 10 years and noted that more changes will occur after grantors, recipients, and pass through entities implement business processes. Morton-Huddleston and Dixon (2014) suggested that OFFICE OF MANAGEMENT AND BUDGET guidance is one of the policies that need to achieve a 97% accuracy rate by the fiscal year 2016. The other policy changes are the Improper

Payments Elimination and Recovery Act, and the Digital Accountability and

Transparency Act of 2014 (Morton-Hudleston & Dixon, 2014). Future researchers might

study the total effect of these new laws and the Office of Management and Budget

compliance rules.

In Section 2, I described the project in detail beginning with a restatement of the

purpose of the study. I also described my role as the research instrument for this study.

This section includes a detailed description of the participants and how I gained access to

them. Next, I provided an in depth explanation of the research method and design

followed by the population and sampling. A discussion on ethical research, consent

process, and data collection procedures followed. Finally, I described the reliability and

validity of this study in qualitative terms.

Purpose Statement

The purpose of the qualitative descriptive study was to identify the strategies that

grant recipients use to implement federal award compliance requirements across the full

life cycle of their grants. Twenty certified grants management specialists participated in

the study. As members of the U.S. based National Grants Management Association, they

have specialized knowledge about full life cycle grants management (2012). Members

participating in the study reside in different locations across the contiguous United States.

I conducted semistructured telephone interviews with the participants to explore factors

affecting their implementation of the Uniform Guidance.

Highlighting some of the strategies that grants managers use to implement the

guidelines may reduce the administrative burden on grant managers in state and local

government and nonprofit organizations who receive and manage grants. The Uniform

Guidance includes cost principles, audit, and administrative requirements for federal

awards (Ashenfarb, 2015). Data from the study could have a positive social impact by

improving internal control processes grant recipients. Improvements may lead to

significant savings in taxpayer dollars and additional grant awarding opportunities.

Role of the Researcher

In this study, I collected, organized, and interpreted data and results from 20

interviews. Study participants were members of a professional association; they work in

grant management in an oversight, accountability, or reporting capacity. I had no

conflicts of interest because I have no direct work experience in the field of federal funds.

I also had no prior working relationship with any of the participants. As a former defense

contractor, I understood that some private defense contractors contributed to the improper

payment problem (see Steinhoff & Posner, 2010). The knowledge that I possessed on the

subject of grants compliance did not influence the design of this study or the processes

for collecting the data. I gained knowledge as the study progressed from the literature

review, collection of data, and subsequent data analysis.

In my role as a researcher, I also followed the ethical rules and guidelines for

research involving human subjects per the Belmont Report (BR) with emphasis on the

quality of meeting the ethical requirements. In 1979, the Department of Health,

Education, and Welfare commissioned a report to identify ethical principles implemented

by the National Research Act, also known as public law 93-348 (HHS.gov, 1979).

According to Corman (2010), the Belmont Report is the foundation of all U.S. laws

governing the ethical research of humans. Corman emphasized the quality of the Belmont

Report, rather than who followed the regulatory mechanisms. Vollmer and Howard

(2010) restated the three areas of ethical considerations in the Belmont Report, which

include respect, beneficence, and justice. Vollmer and Howard found that assessing the

design of the study is the needed part of evaluating whether the researcher meets ethical

considerations according to the Belmont Report. The study did not involve vulnerable

members. I adhered to the guidelines outlined in the Belmont Report and ensured their

participation included ethical treatment and resulted in a societal contribution beneficial

to all.

The decision to pursue a study in the grant business area grew from my

observations of the discussions on grants management problems at a professional

association's national conference. As a nongrant professional, I had no preconceived

notions on how to correct the problem of improper payments. I orientated the approach to

the study from the viewpoint of the taxpayer. Bannister and Connolly (2011) found that if

the citizen sees transparency in how the government conducts business, the potential for

trust grows. As the research instrument for the study, I interpreted data using a pragmatic

approach because I investigate all aspects effecting a situation.

According to Chenail (2011a), eliminating bias from qualitative research is

difficult when using interviews as a data collection method. I overcame bias by asking

interview questions vetted through professionals in the field. The delivery style I

presented in the questioning could steer participants to respond in a way that did not

reveal their true thoughts on their experiences (Gorrell, Ford, Madden, Holdridge, &

Eaglestone, 2011). I avoided potential bias by sending the questions five days in advance of the interview. This allowed the participant time to respond with rich answers. Sending the questions in advance to the interviewees allowed for discovery through open ended questions.

To identify personal bias, a scholar pays critical attention to events in the present; while at the same time, he or she reflects on past experiences (Finlay, 2013). Bracketing is one technique for eliminating bias in qualitative research (Finlay, 2013). Walsh (2012) found scholars could reduce preconceived ideas about an event through bracketing. According to Sandelowski (2000), if a descriptive study includes information from other designs such as phenomenology, the researcher must describe the relationship. I combined descriptive aspects with content and thematic analysis to discover whom the problem affected, what was being done, and where the events occurred. Walsh stated that when a researcher poses a question to a study participant, the researcher makes an assumption. Walsh found that a researcher makes an assumption because he or she believes the facts to be true because he or she bases them on the nature of the research topic and the bounds of knowledge. Walsh posited the difference in earlier bracketing from Husserlian and Heideggerian views changed from experiencing to perceiving the subject and philosophically; they are the same.

Participants

The population for the study included 166 certified grants management specialists. Participants included 20 members from the National Grants Management Association. The members actively participate in grants administration and management

at various stages of the grant process and have the strategies in place today to implement

the compliance requirements. The 20 or more members all possessed the requisite

knowledge to provide information relating to business processes at each level of the grant

life cycle including strategies to implement the uniform compliance requirements for

federal awards. The participants were in the process of addressing the problem of grant

recipients meeting the compliance requirements for federal awards (M. E. Oliver,

personal communication, July 10, 2015). The National Grants Management Association

participant members gave richness to the study because of their qualifications and

experience in one or more of three areas including management, oversight, or auditing.

The decision of who participated was an important step in the design of the study

(Chenail, 2011b). I chose certified grants management specialists for this study because

of their subject matter expertise, which provided the best alignment to the purpose of the

study.

Chenail (2011b) highlighted the importance of protecting the data and the

members. To access the participants, I built a relationship through professional and

personal contacts in the grant management field. Those contacts had access to grant

administrators at all levels of federal, state, and local government along with private

industry who have membership in the National Grants Management Association. The

interview participants received a consent form that clearly articulated the intent to keep

personal and professional information private (see Appendix A). The participant did not

need to sign and return the document. Only replying to the email with the words "I

consent" sufficed. The relationship between researcher and participant developed through

mutual respect with each other and a desire to collaborate on improving business

processes to be ready to implement the uniform federal guidance. I used member

checking to enhance the relationship with the participant by being transparent on the

progress and findings of the study. Gaining access to key members associated with grants

administration with industry recognized certified eligibility added credibility to the study.

Members from the National Grants Management Association must have or be eligible to

hold, the certified grants management specialists credential. The credential certifies the

professional as having mastered the practice of grants management and possesses a

specialized knowledge of the grant life cycle (NGMA, 2012). The participants

demonstrated a thorough understanding of federal grants for full life cycle grant

management and the ability to discover strategies to be audit ready according to the

Uniform Guidance. Table 2 was the procedures for gaining access to the participants.

Table 2

Procedure for Gaining Access to Participants

Steps	Desired outcome
1. Email introduction to certified grants management specialists credentialed National Grants Management Association members from association president with consent form attached	Members respond directly to the researcher with consent to participate
2. Researcher contacts first 20 participants in date and time order of the received email to schedule telephone or Skype interview	Participants confirm date and time of interview
3. Collect and analyze data	If saturation was achieved, publish results in Section 3. If not; proceed to step 4
4. Contact the next five participants in the	Participants confirm date and time of

date and time order of received email to schedule telephone or Skype interview	interview
5. Collect and analyze data	If saturation was achieved, publish results in Section 3. If not; repeat steps 4 and five until reaching data saturation

Research Method and Design

A researcher has three choices to conduct a study, which include qualitative, quantitative, and mixed methods (Wahyuni, 2012). Qualitative research designs include phenomenology, descriptive, case study, ethnographic, grounded theory, Delphi, and others (Rowley, 2012). Quantitative research designs can be descriptive, correlational, quasi experimental, or experimental. According to Trusty (2011), a researcher might identify critical aspects of the experience in a qualitative study. Whereas, in a quantitative study, the researcher could find support or not find support for a hypothesis based on the results of the study (Trusty, 2011). A mixed methods study of the same problem might reveal through triangulation, repetitive patterns, and a consistent relationship among variables (Abowitz & Toole, 2010).

Research Method

A quantitative researcher examines the numbers while and qualitative researcher looks at the text (Patton, 2002). Bluhm, Harman, Lee, and Mitchell (2011) assessed qualitative articles published in 10 years before 2011and found the standards of acceptance for qualitative research more demanding than quantitative research. Bluhm et al. highlighted one significant problem with qualitative research; there is no road map or template to design qualitative research. Instead, researchers often fall back on best practices. An example may include checks for accuracy, the conceptual framework using

a strong theory, and triangulation. Ivey (2012) found the value of qualitative research is in the detailed analysis of the data and the comparison of findings to the literature. Jogulu and Pansiri (2011) believed the research for business management requires a multifaceted plan with updated techniques to examine the data and identify the business problem.

Historically, Jogulu and Pansiri (2011) found most management studies used quantitative research methods. Qualitative inquiry gained popularity with social researchers because the lived experiences of the study participants brought more of a focus to the phenomena of the problem than quantitative research (Jogulu & Pansiri, 2011). Like qualitative research, mixed methods gained increased recognition across research disciplines (Clark, 2010). Clark (2010) has highlighted the increased use of a mixed methods approach by graduate students.

Any one of the three research methods was viable for exploring the problem of not being full life cycle audit ready. Two researchers, who hold doctorates in philosophy, studied federal grants using different research methods for their respective dissertations. Humphress (2011) conducted a dissertation using the qualitative grounded theory design to examine processes to improve grant audits at Homeland Security. Humphress used the grounded theory method because a review of the literature lacked the desired depth. Humphress developed a general theory based on the coding of the participant responses. The grounded theory design uses concepts developed from themes or ideas that emerge from observing participants in different settings and synthesizing the information (Suri, 2011). Hyde (2011) conducted a quantitative study by testing several theories on material weaknesses in the compliant side of federal grants specific to U.S. Counties. Hyde found

material weaknesses were more likely to occur in counties with fewer resources than in counties with more resources. Hyde also found the size of the U.S. County was not a determinant factor in material weaknesses. The study conducted by Hyde closely related to the research topic.

The decision to use a qualitative research design often depends on the literature review (Trusty, 2011). The literature review framework for the study developed from a holistic systems point of view. I chose a qualitative approach to investigate the internal controls or the business process of managing a grant under the Office of Management And Budget guidelines for full life cycle grant management. The quantitative method did not provide insight into the research question at multiple levels of the grant management life cycle. I did not choose the mixed methods, for the same reason. The quantitative research method does not bring enough research depth to the problem of full life cycle grant management because of the complex challenges of grant management under federal compliance rules.

Research Design

The research design is one determinant to the application of the research method to the research question (Chenail, 2011b). Bluhm, Harman, Lee, & Mitchell (2011) analyzed the progress of qualitative research methods from 2000 to 2010 and found some viable design approaches for the study including (a) phenomenology, which examines individually learned experiences; (b) ethnography, to identify the characteristics of a culture from within the culture; and (c) case study, a description of a person or group after an in depth study. Narrative researchers interpret human experiences through a

narrative explanation (Hays & Wood, 2011). The Delphi technique is a communication between the researcher and a participant or panel of experts to discuss the problem (Sinha, Smyth, & Williamson, 2011). Sinha et al. (2011) found the Delphi technique less structured than other study designs; however, it is effective in reaching unanimity amongst the participants.

Among the research designs possible for the study, the phenomenological, descriptive, case study and Delphi techniques fit best for the problem statement, the purpose of the study, and the research question. Yin (2009) recommended using the research question and rationalizing each design individually by asking if the design meets the needs of the study. The holistic approach to the study drove the reliance on two theories, which were systems thinking and compliance. The case study and Delphi methods do not improve the rigor needed to identify strategies for grant recipients to implement federal award compliance requirements for full life cycle grant management.

Other research designs considered and not selected did not meet the needs of the study. Examining full life cycle grant management at the grant recipient level was possible for ethnography research in a more concentrated environment. An example might include a department in one of the 20 plus federal agencies that award grants or state agency that receive grants. Humphress (2012) conducted a related grounded theory study on improving audits in the U. S. Department of Homeland Security because the literature lacked substantive research. A grounded theory was a viable approach because the literature on improper payments, especially in grant management, lacks depth. The grounded theory design is better suited for the degree of Doctor of Philosophy because a

researcher uses grounded theory to develop a theory from the data collected through qualitative methods and quantitative research (Corely, 2015). The Case study was another viable research plan. The Government Accountability Office (GAO) conducted case studies (GAO, 2011c, 2012a) on select federal agencies on grant management oversight. The results revealed problems with oversight and accountability; however, the data lacked the information needed for leadership to make the necessary changes. Individually lived experiences might provide the information from the perspective of grant professionals with the responsibility to administrate or provide oversight of disbursed grants. A descriptive design provided better insight into what was happening at the time with a full life cycle grant management and the ability to implement the Uniform Guidance.

One determinant of the design was how to collect the data and choose the research instrument. Wahyuni (2012) believed a researcher might benefit by understanding the different paradigms of social research, which are philosophical in nature. Wahyuni compared the differences in terms of a researcher's philosophy or worldviews as positivism, post positivism, and pragmatism. As a pragmatist, approaching the business problem using General Systems Theory provided the proper perspective. Chenail (2011b) developed a template to conduct a pragmatic qualitative research. The 10 step template incorporated best practices from Chenail's experience as a qualitative researcher and other qualitative researchers. Chenail used a pragmatic approach to creating the ten steps, which aligned with my worldview as a pragmatic researcher. To legitimize a scholar's research design, Chenail recommended the alignment of all aspects of the study. Chenail

posited the research question provides the best direction for a researcher's study. Finlay (2013) defined phenomenology as a rich description of experiences. The interpretation of data in some research requires a straight description with the ability to articulate the results theoretically and descriptively (Giorgi, 2009). When scholars use a descriptive design with a broad depth of data, meaningful and complex outcomes might develop (Giorgi, 2009). I chose a qualitative descriptive approach because quantitative research did not reveal why some grant administrators at state and local government agencies and some leaders of nonprofit organizations lacked strategies to comply with compliance requirements.

The descriptive design draws from phenomenology as a foundation for the descriptive data (Sandelowski, 2000). Sandelowski (2000) concluded, when a researcher needs a straightforward account of phenomena, the descriptive design is a valuable tool. Two other bedrock areas of the descriptive approach are content and thematic analysis. (Vaismoradi, Turunen, & Bondas, 2013). Most qualitative researchers use content and thematic analysis interchangeably because the boundaries for each lack definition (Sandelowski & Leeman, 2012). The analysis of the data derives from the researcher's interpretation, which might complicate the replication of the study even with identical coding (Sandelowski & Leeman, 2012). In content analysis, there is a breakdown of collected textual data in different forms, whereas thematic analysis identifies patterns that develop (Vaismoradi et al., 2013). Although thematic analysis emerged in the late 1960s, it did not become part of the discussion in qualitative research until the 1990s (Braun, Clarke, & Terry, 2015). The flexibility in the content analysis allows the researcher to

collect rigorously qualitative data systematically through synthesizing the findings (Finfgeld-Connett, 2014). The development of themes first occurs with the researcher naming a theme and then providing a definition (Braun et al., 2015). For the purposes of the study, I chose a descriptive qualitative method using content analysis and thematic analysis based on my holistic approach to the research.

Sandelowski (2000) found descriptive qualitative studies help researchers describe the experiences of participants in the here and now. Qualitative description combines a presentation of analysis of the data collected from the sample (Sandelowski, 2000). Sandelowski further stated nursing researchers need descriptive design because of the increasing complexity of qualitative or quantitative research methods. For example, Ma (2014), a nursing researcher found the descriptive design helpful because the sample varied demographically. Ma used a qualitative descriptive design to study older adults and their description of their quality of life. The experience was too difficult to study using other research methodologies. Husserl (1913/1962) saw phenomenology as a descriptive discipline where participants must personally experience the phenomenon to be able to describe the experience. Giorgi (2009) presented the descriptive framework as a precise description of what occurred where the researcher would not add to or subtract from what is here and now.

In the study, a descriptive design provided the flexibility needed to investigate the complexities of the grant life cycle. Social science researchers increasingly use descriptive studies because the researcher can now include other designs under the qualitative descriptive method in an eclectic manner (Sandelowski, 2000). Giorgi (2009)

called it a meeting of three philosophical movements where phenomenology, science and psychology come together. I chose the descriptive design to explore the knowledge of grant professionals to identify strategies for grant recipients to implement the uniform guidelines for federal awards. I wanted to discover what the participants were thinking and doing in terms of the implementation of the federal grant compliance requirements. The data may help reveal elements of potential strategies for grant recipients to implement the new demands for full life cycle grant management. For the study, data saturation occurred when I was unable to identify new information, identify new coding, and develop new themes from the data (Ando, Cousins, & Young, 2014). The study included six focused, semistructured questions using a sample size of 20 members. I expected data saturation after 12 interviews (Guest, Bunce, & Johnson, 2006) and it occurred after eight interviews. Had data saturation not occurred using data from a minimum of 20 interviews, the interview process would continue until I achieved data saturation.

The need to comply with the Uniform Guidance for federal funds began in December 2014 (Federal Register, 2013). The newness of the data lacked the maturity required to evaluate the effectiveness of the new process improvement measures using a quantitative design. In a descriptive design, I discovered strategies for grant recipients to implement the federal award compliance requirements. In the future, a researcher might use a quantitative or mixed method study to examine the success or failure of the compliance requirements.

Population and Sampling

In the study, I used a purposive sampling method to choose the participants whose specialized experiences informed the research problem and question. Suri (2011) found the chances of achieving saturation of the data are greater with purposeful sampling. Census type sampling might provide a better overall assessment than data analysis from purposeful sampling because the results are bias free (Shearmur, 2015). In the study, a census sampling from all Certified Grant Managers was not practical and did not meet the needs of the study. The sampling method was purposeful because the issues with business processes and systems occur at every level of the grants process (Werfel & Steinhoff, 2014). The sampling needed to possess a broad understanding of the topic. The knowledge of how internal control weaknesses at various stages of the grant life cycle lead to improper grant payments could help identify process improvements.

Certified grants management specialists with demonstrated expertise in government grants administration, financial management, and auditing made up the population. I sent an email invitation detailing the nature of the study, my role as the researcher and the voluntary nature of the study with an attached copy of the consent form (see Appendix A). Email invitations were sent to all credentialed members from the National Grants Management Association leadership on my behalf. The amount of email invitations sent depended on the number of credentialed members. There were over 167 certified grants management specialists qualified members and the emails specifically solicited voluntary support. I replied to the first 20 credentialed members in the order received in the email inbox to confirm participation. The confirmation went to the next

received email in order of receipt, until I completed 20 interviews. The purposeful

sampling and eligibility acceptance on a first come, first serve basis avoided the need for

deselection. DeFeo (2013) posited purposeful sampling meets the needs of the research

and recognizes the importance the participant brings to the study. As long as the

participant met the selection criteria, deselection did not occur.

To choose the sample, I selected certified grants management specialists who

were all experts in the grants management field and come from financial, auditing and

program administrator professions. In purposive sampling, access to professionals with

knowledge of the subject who can identify the key issues provide context to the research

problem (Suri, 2011). The use of purposeful sampling relies on selecting participants with

particular qualities and is useful to the qualitative researcher because of the

nonprobability of the sample (Suri, 2011). According to Reybold, Lammert, and Stribling

(2013), purposeful sampling is a way to create meaning. In this context, Reybold et al.

posited a researcher builds an account of experiences through their selection choices.

According to Harper (2012), choosing a purposeful sampling could potentially be a

disadvantage because it could expose the researcher to bias. In this study, the certified

grants management specialists were members of the National Grants Management

Association and held the same credential to help lessen the appearance of bias. The

justification for using purposeful sampling derived from the need for participants to have

extensive experience in the grant management field to provide actionable data to improve

business processes at each level of the grant life cycle. Grant administrators who provide

oversight and accountability must have particular knowledge, skills, and ability to perform their duties.

The sample size often used for qualitative interviews is between seven to 12 (O'Reilly & Parker, 2013). The sample size sufficiently characterizes the social inclusiveness of the phenomenon under study, within the target group (O'Reilly & Parker, 2013). The goal for sample size selection was data saturation. Confusion exists on how researchers view saturation and how to use it in a qualitative study (O'Reilly & Parker, 2013). The key was to be transparent in how I determined saturation during data analysis. The population and sampling strategies ensured the data provided the richness needed to develop complete themes from the interview transcripts. Having a wide breadth of grant expertise with knowledge of the research problem provided defensible data collection (Suri, 2011). Full life cycle grants management is a challenge. The complex compliance requirements justified using certified grants management specialists qualified professionals with specialized experience.

For the study, data saturation occurred when I was unable to identify new information, coding, or themes from the data (Ando, Cousins, & Young, 2014). Also, another researcher could replicate the study. The study included six focused, semistructured questions using a sample size of at least 20 and I expected data saturation after 12 interviews (Guest, Bunce, & Johnson, 2006). If the data saturation did not happen using data from a minimum of 20 interviews, the interview process would continue until I achieved data saturation (Patton, 2002).

Ethical Research

I followed the ethical parameters required by Walden University's Institution Review Board (IRB) in the study. Ethical dilemmas occur in qualitative research because responses might be unpredictable (Iphofen, 2011). Iphofen (2011) suggested ethical researchers are open and transparent in their approach to ethics because conducting an interview is an intervention (Patton, 2002). Wolgemuth et al. (2015) explored paradigm driven methods in a multi case study and found the discussions to be beneficial to the participants in different ways. Some found the interviews self reflecting and gained knowledge from the experience (Wolgemuth et al., 2015). The interviewer is not a therapist and needs to focus on the primary task, the collection of data (Patton, 2002). The questioner needs to create the right balance between establishing a rapport with the participant and collecting high quality data (Patton, 2002).

Consent Process

In the study, I respected the consent process and the participants' right to withdraw at any time. Informed consent was critical to the research because the participants must know their right to withdraw, my researcher role, and how I intended to use the data in the study (Qu & Dumay, 2011). The informed consent form shown in Appendix A contains the needed information. While the study was in progress, all participants had equal access to their part in the study. The participants had the opportunity to withdraw at any time by email or a written letter. Subsequent to a participant's withdrawal: I removed all data directly related to his/her participation in the study.

Incentives

The use of incentives is a common practice for both qualitative and quantitative research. Incentives to participate in research function in three ways: (a) intrinsic, meaning the desire to be in the study comes from the participant's beliefs; (b) extrinsic, meaning the participant will get a reward for participation; and (c) a combination of both (Seymour, 2012). Paying for research participation typically comes in the form of a reasonable reimbursement such as travel, parking, or lost time (London, Borasky, & Bhan, 2012). The aim was for participants not to suffer any financial or material loss (London et al., 2012).

Incentives are a big factor in medical research at various universities due to the keen competition for government funds (Derrick & Bryant, 2013). Derrick and Bryant (2013) found internal monetary incentives to publish, attracts a higher quality researcher. By attracting better researchers, incentives strengthen the credibility of the research and support the practice ethically (Derrick & Bryant, 2013).

Monetary rewards for support were not part of the effort to recruit subjects for the interviews for the study. With the participation of the study in the form of telephone interviews, there was no need for reimbursement travel expenses. Gaining access to the 20 minimum participants needed for the study was not a problem because the resource pool genuinely cared about finding ways to reduce improper payments. Seymour (2012) found the nature of a study has the potential to draw altruistic motivation to participate. The professionals who made up the population pool might find the nature of the study

appealing because of the potential to identify strategies to improve internal control

business processes at the recipient level.

Protecting the Participants.

To protect the basic rights of the participants, I will keep the data in a secure place

for five years after the publication of the study. Password protected electronic files ensure

the privacy of the participants. All physical data such as copies of computer files stored

on a write protected computer disc, working papers, and voice recorder are in a locked

safe for five years after completion of the study. At the five year point, I plan to destroy

all forms of data and media related to study by the most efficient means.

Study participants had the opportunity to withdraw at any time. If a withdrawal

had occurred, an invitation to the next qualified candidate in the organization would

become the next step. I took all possible measures to ensure there was no disclosure of

participant identities either directly, or indirectly. Finally, I took precaution not to

inadvertently identify any of the participants in the themes or coded data.

Participant names remained confidential and not identified in the findings of the

study. I assigned a unique identification code from *Participant 01* through *Participant 20*

meaning Certified Grant Management Specialist participants one through 20. In the

informed consent form (Appendix A), I detailed identity protection measures including

the use of textual coding to identify themes. A password protected computer file contains

documents identifying the name of the participant. Hard copy files are in a locked safe for

five years after publication of the study. To identify themes, I used a structured coding

system of analysis based on data collected from telephone interviews. The coding system

was textual coding developed from NVivo10 qualitative analysis software, to organize the data and identify themes.

Data Collection Instruments

I was the data collection instrument for the study. According to Bansal and Corley (2012), scholars challenge, change, or even advance theory through lived experiences of events. I identified multiple variables in the analysis, which was why I chose a qualitative research option. The data that comprised each variable came in the form of textual coding analysis where themes developed through descriptive analysis.

Qu and Dumay (2011) found interviews provide an avenue to discover the lived experiences of another's view of the problem. Qu and Dumay further stated the interview is among the significant data collection methods in qualitative research. The interview is a growing technique in all disciplines as a philosophical way to collect data (Bolling, 2012). Other qualitative interview methods include: (a) autobiographical or narrative, where the participant recounts specific episodic memories (Prior, 2014); (b) case study interviews, where analysis of collected data provides information on a particular case or multiple cases; (c) grounded theory, which develops information from experts in the field through individual interviews and focus groups (Qu and Dumay, 2011); and (d) ethnographic, where collected data helps develop culture sharing description. Spowart and Nairn (2014) studied the diary interview method in case studies as a way for participants to become more involved with the research. Spowart and Nairn found the combination of a diary and follow-on interviews helpful yet stressed the potential exists for a personal intrusion. Throughout the study, the central research question guided the

research. I explored the problem of full life cycle grant management, so I chose the interview as a data collection method. The individual experiences explored subjectively through interviews, provided a way to identify the key issues (Englander, 2012).

In a qualitative study, because the person conducting the research is part of the research, the collected data must be reliable and valid (Moustakas, 1994). The semistructured interview was the selected instrument for the study. I did not use standardized research instruments in the study. As the instrument for analysis in the study, I collected data through 20 semistructured interviews using open ended questions. Open ended questions provided preambles for the members to contribute their perspective without the limits closed ended questions might impose (Chenail, 2011a). Semistructured interview questions provided flexibility (Rowley, 2012) and served to introduce further questions when the participant brought up issues worthy of further exploration (Cachia & Millward, 2011). All raw data was available to the participants by request from the researcher.

I conducted member checking with the participants. Qualitative researchers use member checking to achieve trustworthiness in the study. Member checking was not just checking back with the participant to determine whether the transcription was correct; it involved checking data between participants (Morse, 2015). Reilly (2013) considered member checking from a pragmatic view and found problems might occur if the participant does not feel comfortable with their experiences transcribed into coding. Carlson (2010) suggested the researcher could have a member checked by reviewing coded data instead of reviewing the transcribed data to avoid problems. It was important

as an instrument for the study to be aware of the problems that could occur in the member

checking process (Reilly, 2013). According to Reilly, providing the member with the

ability to validate the information provided to challenge interpretations and conclusions

made by the researcher, to establish a trusting relationship and to authenticate the data.

Member checking could introduce traps into the process and poor communication with

the participant could result in a loss of valuable data (Carlson, 2010). Self laid traps occur

more often in qualitative research because of the different designs in research (Carlson,

2010). Carlson (2010) found the influence of transcription is a potential trap because

some researchers condense the data to suit their needs. I coded verbatim transcription

with the deletion of linguistic details such as laughter, expletives, repeated words, and

expressions (e.g. *ahs* and *ums*). To avoid the member checking traps, I maintained

rapport with members throughout the transcription process by establishing a

predetermined list of expectations (Carlson, 2010). As the primary instrument for

collecting data, my role was to collect, organize, and interpret the data from the

interviews. To confirm trustworthiness with the participant, I included them in the

transcription process through member checking. In addition to the trustworthiness,

involving the respondent in the transcription process provides dependability and

credibility of the study (Mero-Jaffe, 2011). I personally conducted each interview and

reviewed the data with the members at strategic points throughout the study. The

researcher's view of the data to the member to verify accuracy must often occur. I

checked with the members after the development of themes and codes from a transcribed

interview. Building trust through transparency defends against the threat to credibility.

From the data, significant statements and themes developed in the form of concepts measured by the instrument for the study. To ensure the credibility and dependability of the instrument, I tried to identify if there was any researcher bias through bracketing interviews through reflexivity. Finlay (2013) described Husserl's idea of epoché or reduction where an examiner takes something that occurred in the past and then reflects on how it looks now after gaining life experience.

According to Stacey and Vincent (2011) threats to the credibility of qualitative interviews exists. Stacey and Vincent identified three threats to include (a) response rates, which could introduce bias in final sample numbers (b) interpretation of the recordings, which excludes nonverbal activity of the member; and (c) dependability of the sample, where one might question the experience and expertise of the member's response. The participants possessed a specific certification to address the threat of response rate bias. To eliminate bias in sample selection, I invited the first 20 members who responded positively and met the eligibility requirements to participate in the interview process. To reduce distortion possibilities on digital recordings, I recorded the interviews using Livescribe pen. The use of a backup digital voice recorder served to clarify any distortions on the primary recording device. The strength and reliability of the purposeful sampling derived from the certifications required for participation. The National Grants Management Association members recognized the psychometrically tested, industry wide accepted standards of knowledge, skills, capabilities, and ethical conduct of certified grants management specialists' certification.

Data Collection Technique

The interview setting took place on the telephone where I asked semistructured questions. Although face to face interviews are the preferred interview process (Holt, 2010), the telephone provided access to trained experts needed for the study who lived in different geographic locations across the United States. More researchers are taking advantage of modern technologies for data collection as an alternative to face to face meetings (Holt, 2010). Busy work schedules complicate efforts to gain access to qualified professionals (Holt, 2010). The use of Skype was an alternative method for interviews offered to the participant as a preference. Hanna (2012) used a flexible approach to interviewing by offering members the option of telephone or Skype. The flexibility of telephone or Skype interviews made the research process convenient for all involved and eliminated the need for costly travel to meeting sites and the burden of arranging meeting places.

The plan to use semistructured open ended questions during the interviews could expand to a deeper, hermeneutic discussion through a mutual understanding of the topic (Vandermause & Fleming, 2011). As an instrument for research in the study, I acted as a facilitator during the interview process creating a narrative of the phenomenon along with the participant. Telephone interviews lasting up to one hour for each participant was the data collection technique used in the study. Stacey and Vincent (2011) reviewed numerous studies that evaluated alternative interview methods such as a telephone interview, email, and the traditional in-person interviews and found each a valid data collection method yet presented individual challenges. Face to face meetings might

present logistical challenges for geographically disbursed members during time zone differences present challenges in telephone interviews (Stacey & Vincent, 2011). Vähäsantanen and Saarinen (2013) explored the power that happens between the interviewers and the participants in research interviews. The author's specific concern had to do with open ended interviews because the member exerts more control over the interview than does the interviewer. The context of the interview such as meeting times and location and demographic statistics such as sex, age, race, gender, and language present a potential dynamic (Vähäsantanen & Saarinen, 2013). Vähäsantanen and Saarinen found the interview process an area where the interviewer might use power in a stronger and more diverse way.

According to Cachia and Millward (2011), the advantage of a telephone interview is the accessibility of participants and convenient scheduling to overcome barriers face to face meetings present. Cachia and Millward cited current the business practice of a conference call with an agenda of open-ended questions as an example of the telephone advantages. Holt (2010) found the use of the telephone allowed the member to control their social area and shelter them from people in their vicinity during the interview. A face to face interview could invite distractions from the surrounding environment (Holt, 2010). The disadvantage of the telephone interview was the inability to observe the member's facial reactions or body manner for visual indicators (Holt, 2010). Irvine, Drew, and Sainsbury (2013) posited researchers, who seek to describe the data in a simple way, does not need to observe the demeanor of the participant in an in person interview. Irvine et al. further stated the additional data provided by observing the facial

reactions does not necessarily suggest an analytical purpose. Observing facial reactions and the demeanor of the member during the interview was not a consideration of the data collection process in the study.

Recording and word for word transfer of the interview onto a Microsoft Word document occurred for later coding of the data using NVivo10 qualitative software. NVivo10 software helped to organize the raw data to ensure accuracy and rigor of the data (Leech & Onwuegbuzie, 2011). I used member checking of the coded data to provide dependability and credibility to the study (Carlson, 2010). For data organization, the file naming convention included two alphanumeric characters representing the federal government, state government, or private industry and date of the recording. To safeguard the confidentiality of the participant, I saved all recorded and transcribed interviews in a password protected computer file. Hard copy files were secured in a locked safe and remain there for five years following the publishing of the study. Destruction of the data occurs at the five year point by shredding paper files and discs and erasing all forms of electronic media. Table 3 was the protocol for the interviews.

Table 3

Interview protocol

Step action	What am I going to say
Telephone or Skype interview	
Informed consent	Nature and purpose of the study
	Risks and benefits
	Participant confidentiality
	Right to withdraw at any time
	Thank the participant for their participation
Recording Interviews	Inform the member the entire interview is

	being recorded to develop a written transcript
Data coding process	Review draft transcript
	Findings shared with participant
	Participant confidentiality
	Data stored for 5 years
Member checking	Review data developed and themes with participant
	Adjust themes if needed and review with participant
Research précis provided to members	After final approval of study by Walden University

Interviewing the Investigator

I considered a pilot study to test the credibility and dependability of the interview questions. A pilot study helps to identify bias and possible problems with instrumentation (Chenail, 2011a). Although, researchers use a pilot study in quantitative research, qualitative investigators use fieldwork to provide credibility by operating in the setting under investigation (Patton, 2002). Whiteley (2012) used the qualitative version of a pilot study and called it a preliminary study to explore communication techniques and verify content and procedure. Chenail (2011a) believed a pilot study might use up potentially valuable data important to the main study. Since the population sample was purposeful, the preservation of potentially useful information was important to the study.

In the study, I used Chenail's (2011a) *interview the investigator* technique as part of the initial review of the research questions. The field test helped to address concerns of researcher bias by improving the credibility of the interview questions (Chenail, 2011a). In the study, the field test served to mitigate potential researcher bias, eliminate

ambiguity, and improve the interview questions (Patton, 2002). Using Chenail's design, the interviewer assumed the role of the interviewee in a recorded session where the results improved the research questions and reduced bias. Another benefit was improvements to the consent form. I conducted two interviews using the interview the investigator technique with two nationally recognized experts and leaders in grants management who agreed to take part in the process following Institutional Review Board (IRB) approval. The two interviewers were well known throughout the grants community and brought a high level of credibility and transferability to the research questions. Changes to the research questions occurred through the process.

Preview the Interview

Englander (2012) used the technique of having a pre interview discussion with the participants to develop a rapport and review administrative details such as consent forms and ethical considerations. Englander's preview the interview method with the members helps to establish trust. Members that agreed to participate received the research questions via email before the interview. I made a pre interview telephone call at an agreed time to discuss any ethical considerations and review the consent form. The member returned the consent form approved via email or facsimile. Englander found it useful to go over the research question during the preview process because that gave the participants time to prepare, and then provide more in depth responses during the interview. The gesture establishes a rapport between researcher and participant and helps the member focus on their lived experiences by giving them more time to think about the questions being asked (Englander, 2012). With that rapport, trust develops because the

member knows the researcher went out of his or her way to make sure the member's lived experiences are more fully explored (Englander, 2012). At the onset of each interview, I noted the signed consent form, thanked the respondent for their time, and began the meeting. The data collection instrument for the project was a single investigator asking semistructured questions. Any information developed from the pre interview sessions was not included as part of the data collection.

Figure 6 depicts the process for preparing for an interview by providing the interview questions in advance and discussing ethical considerations and the consent form in a pre interview telephone call.
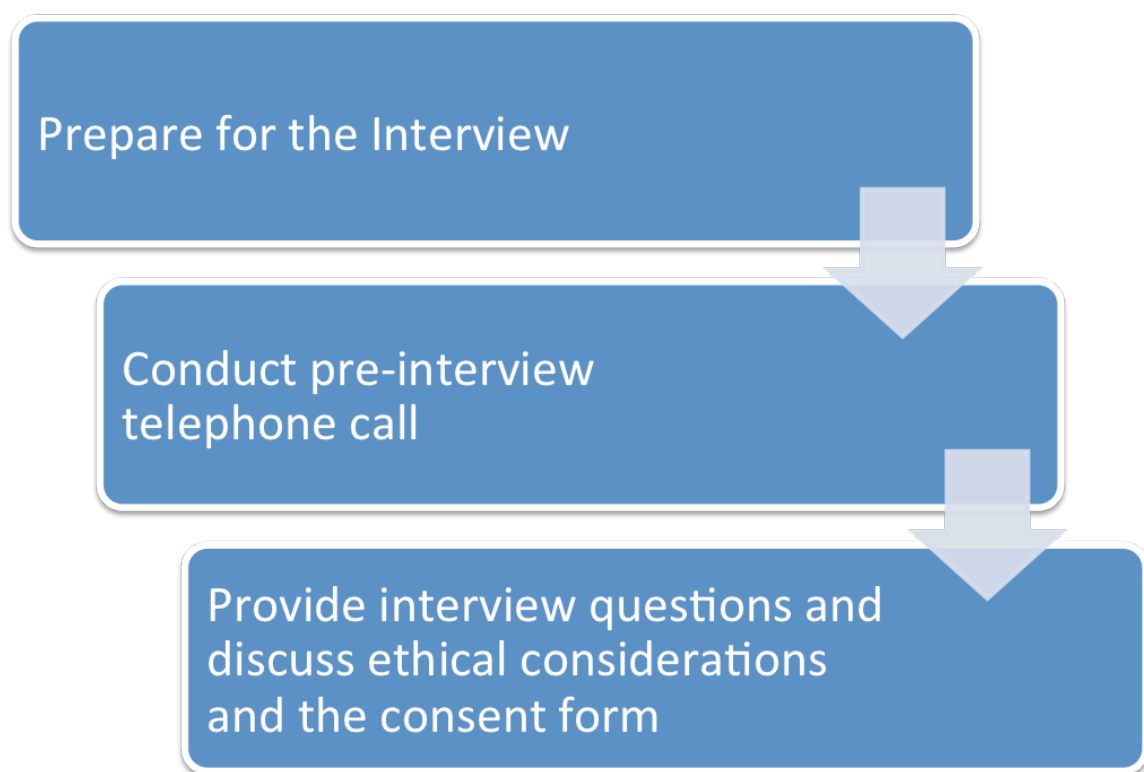
Figure 6. The process for preparing for the interview. Adapted from "The interview: Data collection in descriptive phenomenological human scientific research," by M. Englander 2012, *Journal of Phenomenological Psychology*, 43, p. 27. Copyright 2012 by Brill Academic Publishers. Printed with permission (See Appendix F).

Data Organization Technique

I chose NVivo10 software to organize the information and search for patterns in the transcribed text. Fielding (2012) offered a diverse viewpoint on the different qualitative software available to conduct qualitative research. Fielding discussed the current trends in qualitative research and the relationship between the different software available to researchers.

I stored all research data within a password protected folder titled *project study*. Peer reviewed articles stored in a dedicated folder contain colored tags, which align with the literature review matrix for better organization. Data entry took place using a recording device capable of transferring recorded interviews into raw data folders within the password protected project folder. Recorded interview files included a unique naming convention for the layered protection of the participant's identity. The naming convention for the respondents was Participant 01 through Participant 20. The two digits represent the interview number and then file name ends with the date of the interview. To illustrate, an interview conducted on January 15, 2015, would have the file name *Participant-01_15 Jan 2015*.

The use of NVivo10 software helped to organize the raw data to ensure accuracy and rigor of data collection efforts (Leech & Onwuegbuzie, 2011). Also, member checking using coded data provided dependability and credibility to the study (Carlson, 2010). All raw data such as copies of computer files stored on a write protected computer disc, working papers, and voice recorder are in a locked safe until five years after the publication of the study.

Data Analysis

After I completed the recorded interviews, a description of the data developed from transcribed data. Member checking with participants occurred during the data analysis process to ensure proper representation of their views. Giorgi (2009) suggested three steps in a modified Husserl approach (a) read each transcription in its entirety to get a sense of the whole, (b) determine meaning units, and (c) transform participant mindsets into terms.

Through reflection, I positioned myself with no preconceptions or bias and be self aware throughout the interview and analysis process. Clancy (2013) found the transparency and credibility of a study depend on the researcher's ability to set aside preconceived notions and analysis of the researcher's personal beliefs. The interview questions aligned with the factors affecting grant management in the grant life cycle (see Figure 5) and the conceptual framework for the study.

Determining useful pieces of information gathered from the data collection was a significant challenge in qualitative data analysis (Chenail, 2012). I used NVivo10 qualitative software for data analysis because the software provided a constant comparison between interviews using textual coding techniques (Leech & Onwuegbuzie, 2011). The plan was to use the NVivo10 program evaluation framework matrix (QSR International, 2013) to import transcribed and recorded interviews. The goal was to link the data to the interview questions because participant responses tied to the interview questions was an effective qualitative method (Gläser & Laudel, 2013). Through constant comparison of the data, I reduced the text into codes and then themes developed. Chenail

(2012) suggested scholars develop the skill to read the document line by line while at the same time identify meaningful data from the qualitative units. The development of case nodes helped to differentiate the professional organization of the participant for further analysis on whether themes relate to government agencies and private industry. Subsequently, the process of coding the data to develop ideas helped to query and visualize the data to summarize in a framework matrix. Figure 7 illustrates the steps in the process of data analysis I used in the study. Using Echo Livescribe smart pen, I recorded the telephone interviews and then transcribed the interviews into verbatim text with the deletion of linguistic details such as laughter, expletives, repeated words, and expressions (e.g. *ahs* and *uhms*). Member checking then took place in a debriefing type of interview to support reflexivity (Onwuegbuzie et al., 2012). The next step was the coding of the data using NVivo10. From the coding, themes linked to the research question developed and then analysis occurred. I legitimized the data through the credibility, transferability, dependability, and confirmability as outlined in Table 3. The final step is to publish the results of this study.
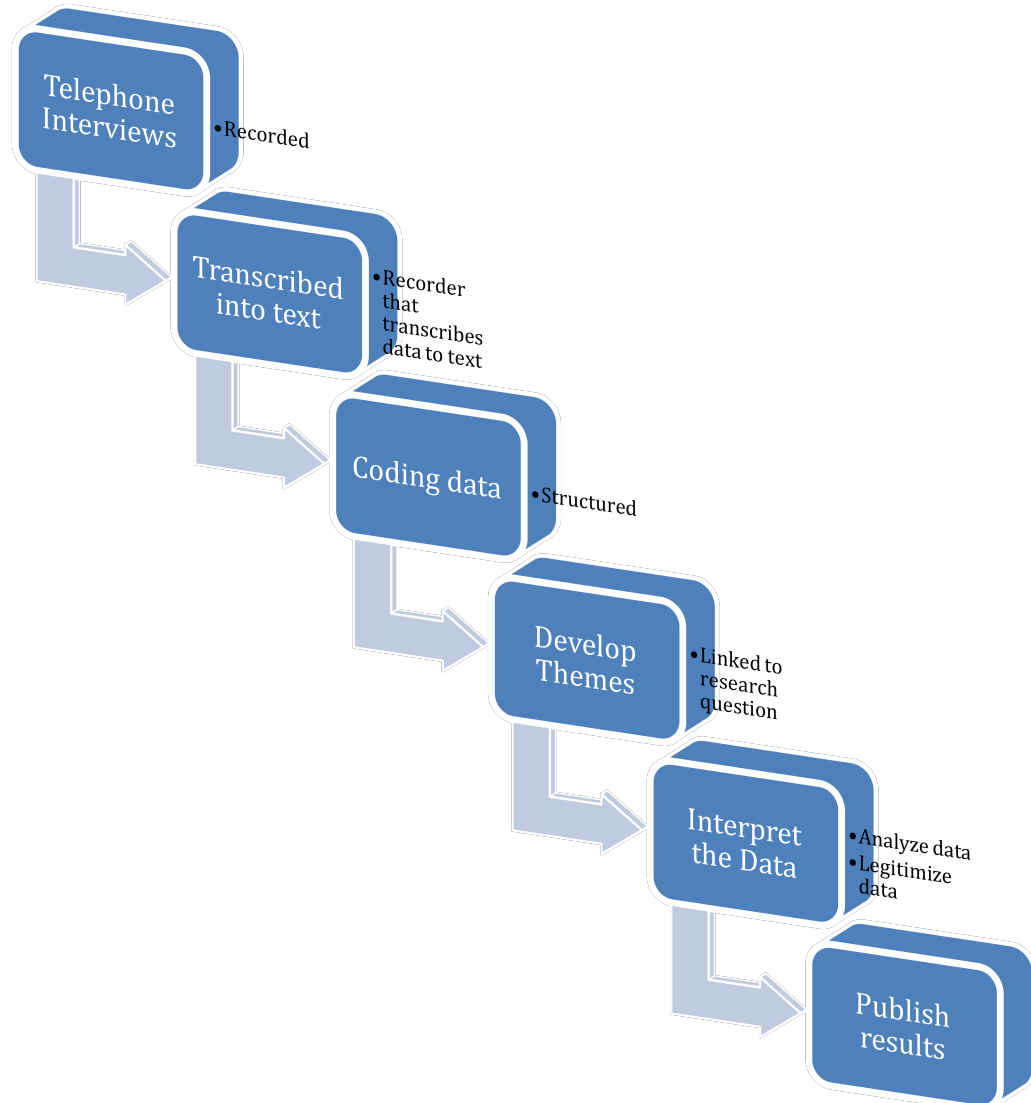
Figure 7. The data analysis process using textual coding techniques. Adapted from "An Exemplar for Teaching and Learning Qualitative Research," by A. J. Onwuegbuzie, N. L. Leech, J. R. Slate, M. Stark, B. Sharma, R. Frels, K. Harris and J. P. Combs 2012, *The Qualitative Report*, 17, pp. 22-27. Copyright 2012 by Anthony J. Onwuegbuzie, Nancy L. Leech, John R. Slate, Marcella Stark, Bipin Sharman, Rebecca Frels, Kristin Harris, Julie P. Combs, and Nova Southeastern University. Printed with permission (See Appendix G).

Credibility and Dependability

The criteria that make a qualitative study reliable and valid differ from quantitative research. Guba and Lincoln (1994) proposed for a qualitative study to be

valid, it must be credible and transferable to other settings. To judge the dependability and credibility of a qualitative study, Guba and Lincoln proposed an alternative approach to quantitative research. These criteria are not measurable and need to be established using the criteria in Table 4. I used Guba and Lincoln's qualitative criteria for reliability and validity the study. I used the coded data collected from interviews to develop themes, which established the credibility of the members. Through member checking, members confirmed the credibility, transferability, dependability, and confirmability of the study from their individually lived experiences (Reilly, 2013).

Table 4

Criteria for determining the dependability, confirmability, credibility and transferability in qualitative research

Criteria	Determination
Dependability of the study	The researcher accounts for context changes in different settings noting how the changes affect the approach to the study.
Confirmability of the study	Through member checking, the participants corroborate the results of the study.
Credibility of the study	Participants determined credible results from the study based on the description of their lived experiences of the events.
Transferability of the study	The ability for another researcher to replicate the study in a different setting.

Note. Table 4 provides a summary of the criteria for judging the dependability and credibility of qualitative research. The table represents criteria first proposed by Guba and Lincoln (1994) as an alternative to judging reliability and validity used in quantitative research. Adapted from "Found Poems, Member Checking and Crises of Representation," by R. C. Reilly, 2013, The Qualitative Report, 18, pp. 1-2. Copyright 2013 by Rosemary C. Reilly and Nova Southeastern University.

Transparency in all aspects of the study was important to build trust with the members and achieve full dependability and credibility (Bluhm, Harman, Lee, & Mitchell, 2011). Researchers must maintain quality control and the rigor of the study (Chenail, 2011a). Revisiting the data collected in the study through member checking provided dependability and credibility to the study (Carlson, 2010). I checked back with the participants to verify their agreement with the transcribed data and interpretation of the data. The practice of providing updates on the findings of the study continued until completion of the study. The gesture of transparency helped to establish a rapport with the members and level of integrity. Qualitative researchers use member checking to achieve trustworthiness in the study. Carlson (2010) posited problems might occur during the member checking process, sometimes created by the qualitative researchers themselves. To avoid traps from member checking, the researcher must establish and maintain trust with the members (Carlson, 2010). Using themes identified during the coding process instead of the fully transcribed document for member checking was one way to avoid problems (Carlson, 2010).

Data saturation occurred when there was (a) no new information, (b) no new coding, (c) no new themes, and (d) the study could be replicated (Guest, Bunce, & Johnson, 2006). The study included six focused, semistructured questions using a sample size of at least 20, and I expected data saturation between 12 to 15 interviews. If the saturation did not occur using data from a minimum of 20 interviews, the interview process would continue until I achieved data saturation. I shared the results with practitioners from the National Grants Management Association, Association of

Government Accountants, and the Director, Strategic Issues at the Government
Accountability Office. If requested, I am prepared to brief association members of the
National Grants Management Association and Association of Government Accountants
at their respective conferences.

Dependability

To achieve rigor, data collection, and data analysis came together in the
descriptive process (Englander, 2012). I discussed the practice of interviewing the
investigator where an associate assumed the role as the interviewer, and I became the
interviewee to test the dependability of the data collection plan. The dependability of a
study depends on whether future studies might achieve the same results (Bluhm, Harman,
Lee, & Mitchell, 2011). Another way to achieve dependability is to use reflexivity to
reflect on the neutrality of the study from the reader's viewpoint (Karlsson, Bergbom, &
Forsberg, 2012). The investigator must continuously look at the research project in a
variety of different ways as part of a revealing process (Whiteley, 2012).

Confirmability

Confirmability is the level to which other researchers can corroborate the results
of the study (Guba & Lincoln, 1994). The determination of neutrality would reflect a lack
of bias and self interest by the researcher (Morse, 2015). A researcher might accomplish
confirmability through the audit trail also used for dependability (Morse, 2015). I
achieved confirmability through a documented peer review of the elements of findings
and expert review of the content analysis. The goal was to achieve consensus about the

relevance and meaning of the themes identified in the study (Holm, Lyberg, Berggren, Cutcliffe, & Severinsson, 2014).

Credibility

One way to determine the credibility or dependability of the study was by using reflexivity (Bluhm, Harman, Lee, & Mitchell, 2011). The credibility of a qualitative study depends on the overall trust placed on the researcher. Reflexivity provided external validation in managing relationships with participants (Berger, 2013). In the study, I (a) recorded observations of the interviews, (b) took notes on the methodology used, (c) recorded initial explanations of the information, and (d) developed inferences from the notes where themes or patterns became obvious (Clancy, 2013). Carlson (2010) found another use of the reflexive journal is to record feelings, reservations, ethics, views, and suppositions that come to light in a study. The continuous review of the study by self reflection helps the researcher see how his or her bias, beliefs, and lived experiences affect the results (Berger, 2013; Clancy, 2013). Reflexivity is personal in nature with the goal of achieving credibility by managing the ongoing analytical changes between observation and theory (Carlson, 2010). The research community recognizes reflexivity as a legitimate method for validating the credibility and confirmability of research (Clancy, 2013).

Transferability

One of the criticisms qualitative researchers face is the generalization of the study in that replication could occur in the same manner as a quantitative study (Wahyuni, 2012). Wahyuni (2012) posited qualitative researchers try to produce a credible analysis

of the data with emphasis on unique content and framework. The transferability depends

on an adequate database of richly described experiences useable in another context

(Reilly, 2013). Critics of trustworthiness cite the weaknesses member checking present

such as unintended traps created by the act of reviewing interpreted data from verbatim

transcripts (Carlson, 2010). Member checks provide respondents with the ability to

challenge perceived errors in interpretation (Reilly, 2013). A purposeful sample requiring

certified grants management specialists' certification provide the ability for replication of

the research in other contexts, venues, or times, which protects against threats to

transferability. For example, a future study with 20 participants with the same required

certifications has more or less the same knowledge of the research topic as the previous

20 members. The location, setting, and times of the data collection do not differ to the

point where challenges to transferability might occur.

Summary and Transition

In Section 1, I covered the foundations of the study where improper payments

continue to be a complex problem for federal agencies, local governments, and nonprofit

organizations. The literature review reflected the conceptual framework based on von

Bertalanffy's holistic systems theory, which analyzed the wholeness of systems (von

Bertalanffy, 1972). Weaknesses at every stage of the grant life cycle (see Figure 5) occur

in part because of poor coordination between grants making agencies, lack of effective

oversight, problems with internal controls, and grant recipient compliance (GAO, 2013b).

In Section 2, I explained the choice of using a descriptive inquiry into the problem

of full life cycle grant management because there was a general lack of internal controls

needed to manage grant programs effectively (Morton-Huddleston, 2012; Steinhoff & Posner, 2010). The purpose of the qualitative descriptive study was to discover strategies for grant recipients to implement federal award compliance requirements for full life cycle grant management. As the research instrument for the study, I conducted a minimum of 20 telephone interviews one hour in duration to explore the lived experiences of professionals involved in the administration of grants different capacities. The voice recordings transcribed into text ensured completeness when transferred into Computer Assisted Qualitative Data Analysis Software (CAQDAS) for coding of the data. The CAQDAS for the study was NVivo10, the popular software of qualitative researchers (Carcary, 2011). Using NVivo10 helped to organize the information where I searched for patterns in the transcribed text. To ensure dependability and credibility of the study, the process of reflexivity helped to identify how personal feelings, biases, and experiences might affect the study (Clancy, 2013).

Section 3 included the findings of the study noting how the evidence collected relates to the literature review and the conceptual framework. The results of the study reflect areas where the findings conflict with existing business practices of grant administration. Most importantly, the findings extensively cover the application to professional practice indicating where improvements may reduce improper payments. To meet Walden University's stated goal of contributing to social change, I defined how findings from the study might tangibly improve our society. In the study, I identified and listed useful actions grant administrators may take to improve internal control processes. The participants and National Grants Management Association leadership received a one

to two page summary of the findings. Further dissemination includes a planned

presentation at separate National Grants Management Association and Association of

Government Accountants professional conferences. Finally, I plan to submit an article

about the study and findings to the peer reviewed *Journal of Government Financial*

Management.

Section 3: Application to Professional Practice and Implications for Change

Introduction

The purpose of the qualitative descriptive study was to identify the strategies that grant recipients use to implement federal award compliance requirements across the full life cycle of their grants. I collected data from publicly available government documents. I also interviewed 20 certified grants management specialists. Study participants came from different sectors including the federal government, state and county governments, universities, the private sector, and nonprofits. I used a purposive sampling method to choose the participants whose specialized experiences informed the research problem and question. I conducted 12 interviews beyond data saturation, which occurred at the eighth interview. This was to develop a thorough collection of full data. The collection of full data helps to build trust with the reader (Elo et al., 2014). The result was a compendium of rich data from certified experts that developed into actionable compliance strategies for grant recipients.

I used NVivo software for MAC to analyze data. To aid in the process of evaluation, I developed two NVivo codebooks. The first was a theory driven codebook with two theory codes (see Table 4), and the second was a data driven codebook (see Table 5). The 84 nodes became first order concepts, which I further developed into six main themes. According to Gioia, Corley, and Hamilton (2012), the concepts are a preamble to the themes. I identified six themes from my analysis of data: training, written policies and procedures, audit readiness, understanding of the compliance rules, capacity, indirect costs, and best practices. These themes were repeatedly mentioned by

participants as good strategies for compliance. In the presentation of the findings, I list

compliance strategies recommended by the participants from the six themes.

Table 4 includes a breakdown of the participants in four categories; participant

code, gender, business sector, and case node. Using participant codes ensured the

anonymity of the interviewees. For member checking, I sent the draft findings to the

members and informed them of their code. This method allowed them to verify

information about them and submit requests for changes. The other three columns present

additional information to the reader.

Table 4

Participation

Participant Code	Gender	Business Sector	Case Node
Participant 1	F	County government	CG01
Participant 2	M	Federal government	FG01
Participant 3	M	County government	CG02
Participant 4	F	State government	SG01
Participant 5	F	Nonprofit	NP01
Participant 6	F	Federal government	FG02
Participant 7	F	Nonprofit	NP02
Participant 8	F	Nonprofit	NP03
Participant 9	M	Private sector	PS01
Participant 10	M	Private sector	PS02
Participant 11	F	Private sector	PS03
Participant 12	F	University sector	US01
Participant 13	M	Federal government	FG03
Participant 14	F	State government	SG02
Participant 15	F	State government	SG03
Participant 16	F	State government	SG04
Participant 17	F	University sector	US02
Participant 18	F	Nonprofit	NP04
Participant 19	F	Nonprofit	NP05
Participant 20	F	Nonprofit	NP06

Presentation of the Findings

The overarching research question guiding the study was, What strategies do leaders of organizations who are federal grant recipients use to be audit ready for full life cycle grant management according to the Uniform Guidance? I presented the following questions to the participants:

1. What strategies do leaders of organizations who are federal grant recipients use to be audit ready for full life cycle grant management according to the Uniform Guidance?

2. What strategies have been implemented to improve internal controls (business processes) at the recipient level?

3. What strategies have been implemented to improve capacity (resources) at the recipient level?

    3a. What can you tell me about indirect costs or de minimus?

4. What internal controls over financial information were used to facilitate greater data quality at the recipient level?

5. What internal control weaknesses lead to improper payments?

6. Is there anything else you would like to add about implementing the guidance to improve internal controls and capacity at the recipient level?

Participants received the interview questions a minimum of 5 days in advance of their interviews to have time to gather their thoughts and information. I developed the data developed from peer reviewed literature, publicly available government accountability studies, and 20 semistructured interviews of certified grants management specialists. I

conducted the interviews by telephone over a 3 month period from November 25, 2015 to February 29, 2016. The participant pool included 167 certified grants management specialists, 20 of whom responded to an email invitation from the leadership of the National Grants Management Association on my behalf. The email invitation included the Walden University consent form. Each participant consented to the interview according to Walden University IRB policy. The average length of the interviews was 20 minutes. The shortest interview was 10 minutes and the longest, 37 minutes. I recorded each interview and transcribed the voice recordings into verbatim text in NVIVO for MAC format using a service called TranscribeMe. The format provided for a simple upload into the NVIVO program. Also included were the raw recordings, which I revisited frequently to clarify the context of the words and check the interpretation of data.

Coding of data revealed 84 individual nodes. I identified the nodes from first order concepts using the verbatim transcripts. Second order concepts developed where words or a string of words repeated multiple times. After revisiting data on multiple times, I confirmed the following six primary themes:

1. Recipients need grant compliance training programs

2. Recipients need written policies and procedures

3. Recipients need to be audit ready

4. Recipients need to have knowledge and understanding of the OFFICE OF MANAGEMENT AND BUDGET Compliance Rules

5. Recipients need to have an efficient allocation of resources in capacity

6.   Recipients need to implement best practices

Participant responses to the interview questions confirmed that the resources collected in

the literature review aligned with the problem statement, purpose statement, and

interview questions. In particular, the publicly available GAO studies supported the

overall development of themes. Data from participants affirmed the studies that I

included in as my literature review (Ashenfarb, 2015; GAO, 2012a, 2012b, 2014a; Hyde,

2011; Martin, 2014). In Figure 8 I illustrate the process in which I identified themes

based on my analysis of the data.
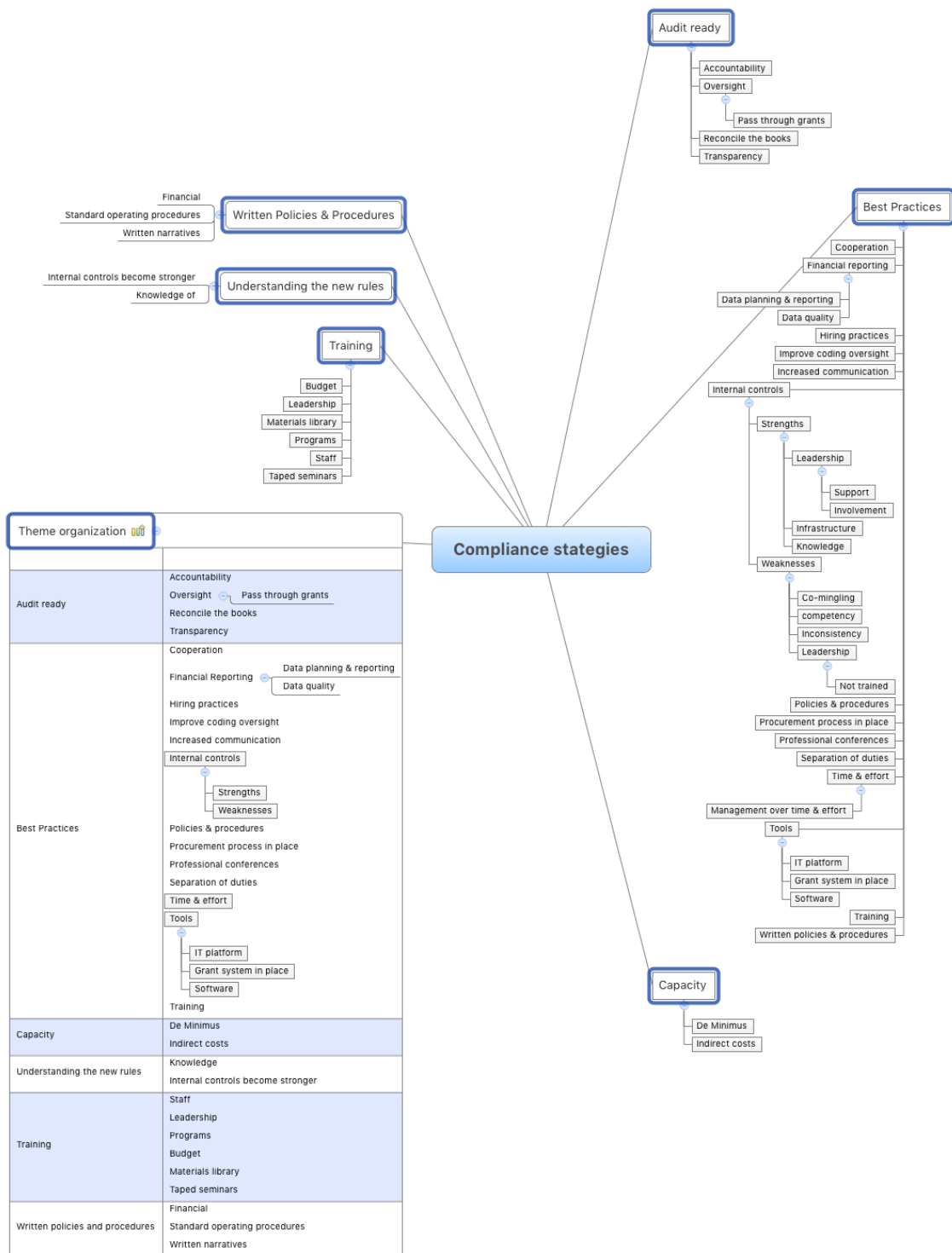
Figure 8. XMind map of first order and second order nodes developed into themes.

NVIVO Codebook Development and Analysis

I developed two NVIVO codebooks to help with the analysis of the data. The coding of the data is a multistep development of the information from interviews to make sense of the data (Decuir-Gunby, Marshall, & McCulloch, 2011). Table 4 is a theory driven codebook that aligns with the conceptual framework of the study. Table 5 is a data driven codebook developed from coding the interview transcripts. The data driven codebook required continuous revisiting of the interview data to gain a clearer understanding of the meaning of the data.

Table 5

NVIVO Theory Driven Codebook

Code name/ label	Definition	Examples of the text
1. Systems thinking reference/ST	Participant described internal control improvements in terms of systems thinking or theory	Have very good grant management system for accounting and financial reporting
2. Compliance reference/COMP	Participant described the strategies for complying with the OFFICE OF MANAGEMENT AND BUDGET rules for federal awards	There was no grant compliance officer looking to see if those draws were appropriate, looking to see if there was fiduciary oversight to data that was not just general data, it was specific to the grant.

Table 6

NVIVO Data Driven Codebook

Code name/ label	Definition	Examples of the text
1. Audit ready/AR	Participant described or references audit readiness of the grant recipient	I think there is a couple of questions that might ask the same thing, but in our organization, that was one of the big things, to credit for audits. That's why I kind of put it under there, that we did have to come up with a couple of different internal controls, because we would not be audit ready. Data planning or reporting communications.
2. Best practices/BP	Participant described business processes in terms of best practices for complying with the rules for receiving federal funds	The other business processes really aligned with anybody that was in the program. Let us say the data team, or the IT team, or the HR team, there were just increased communications, and sign offs, and meetings. There would be once a month meetings. Depending on what kind of grant we had. Obviously, there was more grant meetings with the grant team in that introduction of that process, that business process. It helps everybody in the communication loop and helps keep the program side of the grant on track that was introduced.

(table continues)

Code name/ label	Definition	Examples of the text
3. Capacity /CP	Participant described the resources problems or needs of recipient organizations	This is where I would say the organizations that I have been with have always suffered a bit; is allocation of resources in capacity. Capacity and competency are the two elements that I talk about a lot with grants because you have to have the capacity to handle grants.
4. Financial reporting/FR	Participant described the processes & procedures for financial reporting in recipient organizations	One thing that we have done-- last year, we implemented a new financial system across the board. We have improved our financial system. We have improved our time and effort certification process, in addition to Grants Management Training.
5. Internal control weaknesses/ICW	Participant described the internal control weaknesses of recipient organizations	From a recipient perspective-- I have not thought a lot about internal control weaknesses. I did a little bit of fraud, waste, and abuse work for centers for Medicare and Medicaid services when they were rolling out Obamacare. So they were highly interested in that, although that's kind of very specific things around payments, things like that. By and large, I think for most awardees-- I think in general where they can get it is from ineffective

(*table continues*)

Code name/ label	Definition	Examples of the text
		segregation: their financial transactions and expenditures.
6. Internal control strengths/ICS	Participant described the internal control strengths that facilitate compliance with the rules	We are a support and control office. So saying all that, we have implemented a lot of new internal controls at our level for the folks who are touching the grants and working the programs.
7. Knowledge/KNO	Participant described the lack of knowledge or the importance of knowledge in grants compliance for recipients	In the judicial branch, what I would call program management, they call grant management. They are not well versed in what grant management really is. They don't realize that you need to have a team of people who are program managers, finance people, procurement people, all of these different types of individuals where all this type of information is woven into grant management.
8. Time & effort/T&E	Participant described time the internal controls pertaining to time and effort logs	When you have people who are split funded and you have to keep time and effort logs as opposed to the semiannual certification, that is a very time consuming major piece that is always scrutinized by anyone who audits any kind of federal funds.
9. Tools/TLS	Participant described grant management software or IT tools available to help recipients comply with the compliance rules	They can use my tools. They can just download things, put a new name on it, and use it because we have a preaward tool and a postaward tool.

(*table continues*)

Code name/ label	Definition	Examples of the text
10. Training/TRN	Participant described the need for training or the lack of training at any level	We developed a training program here. It started January of 2014, and we have held a monthly seminar since then. We are about to have our 24th one coming up in December. So the first year, which I established a benchmark of what I knew my people needed to know.
11. Written Policies & Procedures/P&P	Participant described the need for written policies and procedures	One of the real internal control weaknesses is not having written programmatic or financial procedures.

Theme 1: Recipients Need Grant Compliance Training Programs.

Participants described the need for staff and leadership training on grant compliance 80 times from the six interview questions. When comparing the reference to training using the NVivo code book, training emerged as one of the most important strategies for compliance with the uniform rules. The participants also described training as a main strategy for full life cycle grant management. In characterizing recipient training Participants 2, 3, 4, 5, 8, 9, 13, 14, 15, 17, 18, and 19 described importance of a solid training program to grant recipients. A private sector participant indicated their organization touted internal staff training and training from available through professional associations (Participant 17). One state government participant observed, "the federal government should take more of an active role in offering free training on how to comply with and implement the Uniform Guidance" (Participant 4). A participant from county government added:

So by doing training, we, of course, are greatly improving the skill level of our

workforce. It's a way to really engage people. There are a lot of people that like to

learn. People like to do good on their job. They really do. And they want the tools

they need to do that. Training is so important to that. I always am amazed when

governments are like business in that when things go south, business cut their

marketing budgets. Well, in government they cut the training budgets. You got

more people doing more work. A lot of people have gone, so you're wearing four

hats, but you're not going to train people in it. It's just a folly to me. (Participant

3).

A participant from state government observed:

The state-appointed agencies are usually in the executive branch and the

executive branch does not spend a lot of money on training. I know when I was in

the executive branch, I used to have to pay for my own training. I'm in the judicial

branch now, and they actually do have stipends for training. I think that is one

problem, and the bulk of their money does come through a state appointed

agency. And two, the grant certification in federal governments, there are not that

many people that are certified. (Participant 14)

In contrast, one participant from the federal government added:

Within my federal agency, specifically the employment and training

administration, which is the organization that I work for, when Uniform Guidance

was finalized, we wrote a contract for about $1.5 million, followed it up with

another million dollars this current fiscal year in order to facilitate training with

all of our prime recipients, and pass through entities and the subrecipient that

wanted to attend. (Participant 2)

A participant from a nonprofit volunteered:

We have increased our training. We have a monthly training for grants managers.

Also, support has been provided for us to go to the Annual Governor's Grants

Conference here in Maryland. And a couple of us I know, like myself, I'm a part

of the National Grants Management Association, and we stay abreast of federal

funding requirements as they change. We were heavily funded by NIH, so we

receive weekly NIH updates. So, lots of training and continuing to monitor

updates and changes within the industry. (Participant 19)

Some study participants noted the lack of knowledge in their organization's

training at the leadership level. "Ideally, leaders of recipient organization should have a

basic knowledge of the Uniform Guidance so that they can steer their organization on a

path to successful full life cycle grant management" (Participant 4). Participant 17, a

private sector participant suggested internal staff undergo training on the uniform

guidance and make sure the staff knows the requirements for compliance. A nonprofit

participant opined:

They are not training managers. They (managers) don't understand that it's not

just-- they still approach it that, if they are given a source documentation, and they

are drawing and keeping coding, and they let the county system they are using-- if

they are keeping their internal controls correct, then that's all they have to worry

about. There has been no steps to line programmatic completions, or

programmatic milestones, with the draw downs. (Participant 5)

Training was described by participants as the most important strategy for grant

compliance at the recipient level (Participants 2, 3, 4, 5, 6, 8, 9, 14, 15, 17, 18, 19, & 20).

One county government certified specialist touted monthly online training seminars as an

excellent tool for gaining knowledge in compliance. The participant stated:

We developed a training program here. It started January of 2014, and we've held

a monthly seminar since then. We're about to have our 24th one coming up in

December. So the first year, I established a benchmark of what I knew my people

needed to know. (Participant 3)

Participant 20 commented, "It's more about a full knowledge of what they have to do,

and then strategizing how to best accomplish that versus a haphazard approach they have

taken in the past." Another grants specialist offered:

That's our task, and it's not easy because they've just been trying to make

compliance all these years and now they are expected to show performance, too,

and it's just really difficult right now. But I think they'll come around, and I think

it'll happen if we get the right formula of training and support for

them. (Participant 15)

In comparison, there were no references to grant or compliance training in the

literature review. Instead, Government Accountability Office (GAO) studies revealed

only weaknesses in internal controls. The rules require executive management to be

aware of the organization's internal control weaknesses in financial and program risks

(Glenn, 2015b). An article on eXtensible business reporting language highlighted the

need for an online training program for accountants for certification in a yet to be

developed certificate program (Cable & Healy, 2013). The article was not related to

finding strategies for compliance. A search of the government studies revealed training as

an issue for federal agencies. For example, a study by the Government Accountability

Office on behalf of the U.S. Department of Labor highlighted the department's efforts to

provide training and mentoring programs but showed weaknesses in other areas.

Unfortunately, the government studies only revealed results of training programs for

federal agency personnel. Figure 9 is the word tree for the training theme. The search

criteria were the term training versus the interview transcripts. In the tree, I show the

relationship of words used by the participants and the next stream of five words.
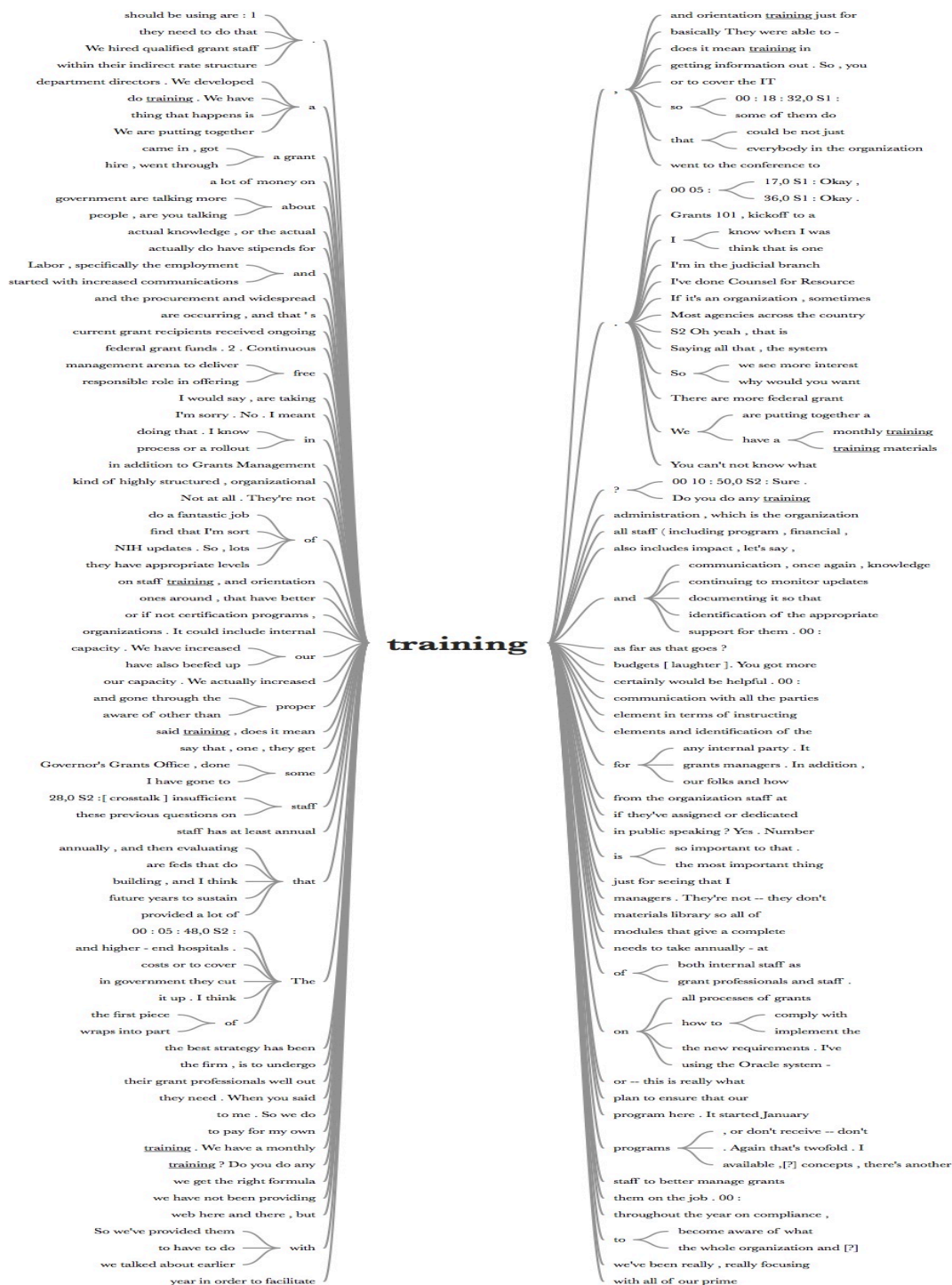
Figure 9. NVIVO word tree of the search term "training" against the interview transcripts.

The findings from theme one do not disconfirm any of the peer reviewed studies in the literature review. I could not find a single reference to training in recipient compliance. When comparing the amount of data on recipient training and lack of information available in the literature, there appears to be a gap in recipient training for complying with the uniform compliance requirements. From the data I identified eleven aggregate areas of emphasis in grant training. Figure 10 is a mind map of participant descriptions on grants training for recipients. A review of the training node indicated staff and leadership training as the number one strategy for recipient compliance in theme one.

Figure 10. XMind Map of participant descriptions of strategies to improve grants training for recipients.

Theme 2: Recipients Need Written Policies And Procedures. One of the dominant themes was the need for written policies and procedures. The theme derived from responses to all six research questions. Another term used by participants was standard operating procedures (SOP). Over half of the participants (Participants 2, 3, 4, 5,

6, 9, 12, 13, 14, 15, and 18) recommended written policies and procedures for compliance and full life cycle grant management. One participant noted:

> One of the things that we've insisted on is every single program we have, every grant funded program, must have written SOPs for how things work with that program. I'm sorry to say that we didn't have that. There are a number of our departments that did not have SOPs and some of them still don't which I find kind of mind boggling. But along the lines here, I have talked to our clerk of the courts folks - and they are the financial people for the county - that we needed a financial management handbook put together. That is something, I think, we're taking on in 2016. So that should help things. (Participant 3)

In response to the question on strategies to improve internal controls, participants 8 and 15 asserted the use of written internal controls. Participant 15 noted, "what I see as real internal control weakness is not having written procedures or complete written procedures whether programmatic or financial." Another expert observed:

> The last things are that their internal controls are written down. And that's more important almost than anything else because that way when there's transition in the department or in an agency, the people that come in and take their places or the people that are doing it temporarily until the positions are permanently filled, they can pick those policies up and make sure that all the internal controls are followed completely. (Participant 8)

Participant 18 added "It's just making sure that we're able to track our business processes and making sure that we've got written policies as well. Organizations should revisit their policies and procedures annually. A participant from state government stated:

> We started with nothing seven years ago, and every year we reevaluate the processes and procedures. And, while I think it's very-- it's a little frustrating for the grantees. For us, it gives us the opportunity to reevaluate and set up better internal controls. (Participant 14)

Figure 11 is the word tree for the policies and procedures theme. The search criteria were the term policies and procedures versus the interview transcripts. In the tree, I show the relationship of words used by the participants and the next stream of five words.
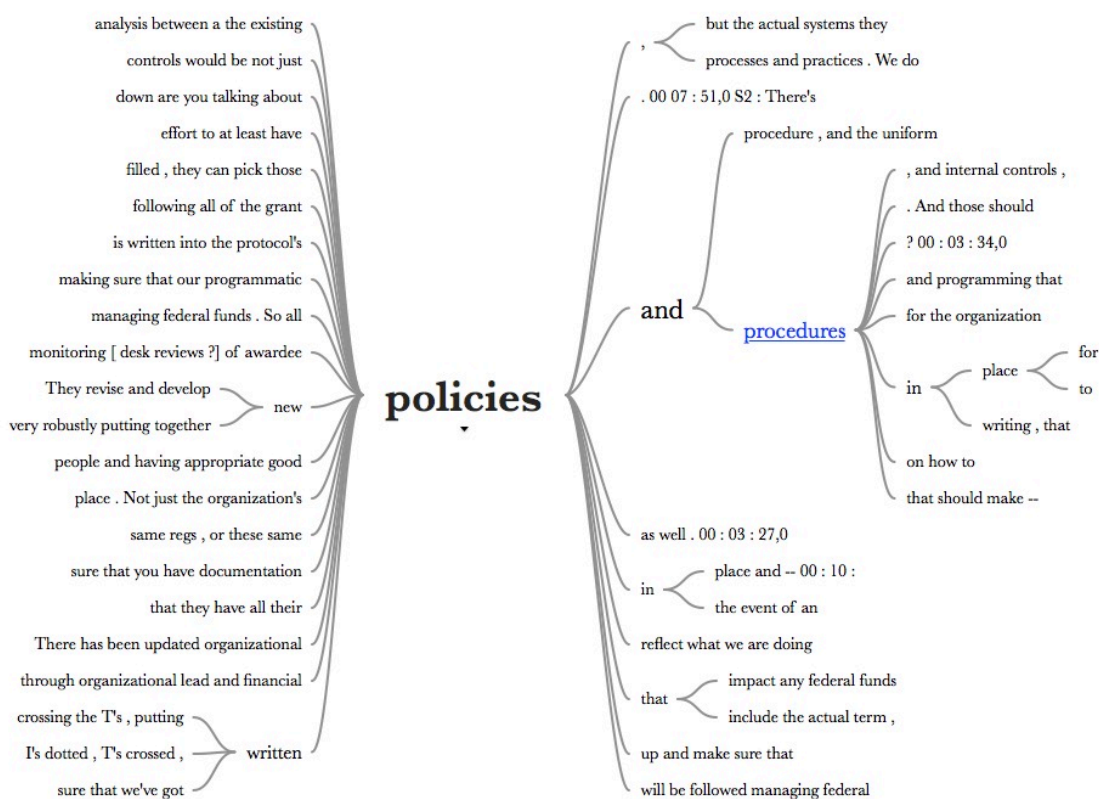
Figure 11. NVIVO word tree of the search term "policies and procedures" against the interview transcripts.

The findings from theme two do not disconfirm any of the peer reviewed studies in the literature review. Either a stemmed word from policy or procedure appeared 11 times in the interview transcripts. Ashenfarb (2015) recommended recipients of grants implement the policies and procedures to comply with the new rules immediately and coordinate with granting agencies. Two excerpts from the review tied to the findings on policies and procedures, however, the relationship was one sided and provided more of a grantor point of view. The literature lacked information about policies and procedures at the recipient level. From the data I identified eight aggregate areas of emphasis in policies and procedures. Figure 12 is a mind map of participant descriptions on the need for recipients to have written policies and procedures. A review of the eight compliance strategies in the node indicated written policies and procedures as the number one strategy for improving recipient compliance.
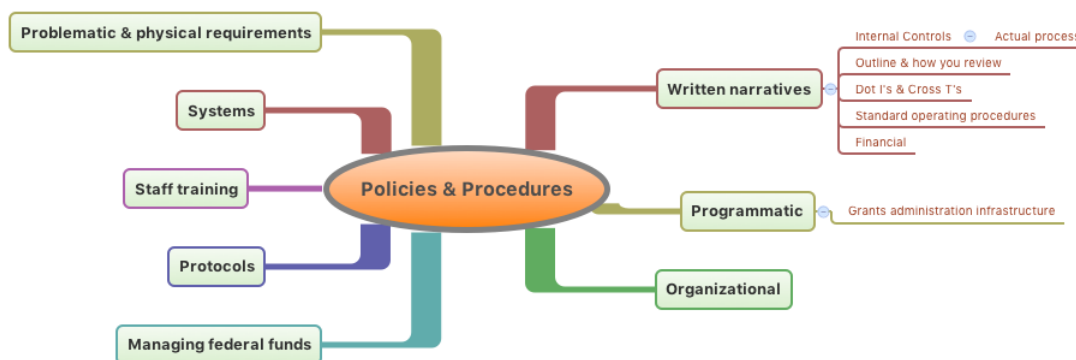
Figure 12. XMind Map of participant descriptions on strategies for policies and procedures.

Theme 3: Recipients Need To Be Audit Ready. In response to research question one, a majority of the participants (Participants 1, 2, 3, 4, 5, 7, 8, 9, 12, 13, 14, 15, 16, 17, 18, and 19) described the need for recipients to be audit ready. Participant 5 mentioned the word *audit* or the term *audit ready* 21 times. A memorable quote from that interview included:

> One of the big things, even in audit ready, still an audit ready question was, that we increase our communication, like our federal awarding agency, the institutions that are currently at and previously really felt like they were scared of their federal program officer. "Oh gosh, I don't like to call them. They will put me on radar". It was actually quite the opposite. Not that you call them every day or that you're a nuisance, but really just having open communication that there are audit questions you want to be ready for, or if there's questions that you're setting up for audit correctly, increase that communication with the people that are coming down to audit, are the ones that are at least going to get the final report, is certainly allowable. (Participant 5)

Participants 2, 4, 8, 15 suggested recipients conduct a self evaluation or pre audit. Participant 1 recommended recipients hire consultants to conduct a pre audit to correct material weaknesses prior to the actual audit. Participant 8 explained how some grantor organizations conduct pre audit evaluations as part of their monitoring and compliance responsibility. Participant 9 added, "key departments and managers are consistently following the internal controls that they have in place, and typically those types of things are what helps them be in an audit-ready position when the auditors come around." Three

participants (Participants 13, 16 and 19) found separation of duties as an important policy in preparation for audits. Participant 13 believed recipients find it more difficult to be audit ready under the new rules. Other participants (Participants 10 and 13) suggested the new rules do not represent much of a change from the previous compliance requirements. Participant 14 expressed the belief, "that most people aren't even aware there are new uniform requirements." Another memorable quote from one of the participants was:

> I think they even need to have another opportunity where people can provide feedback beyond the frequently asked questions. Something that will actually change in the federal regulations, so we'll see something that really we can rely on. Right now people are trying to make the best guess estimate of it. One thing I tell them is plan, don't panic, because until the new guidance and these new regulations are audited, we are not going to really understand what they mean anyway. Until the A-133 audits and the federal audits and state audits go on. So auditors will interpret language very differently than a lot of us in grants management, so we need to prepare for it and have all these things written down and try to implement what we can, but if we make mistakes then we make mistakes because we are not going to know until they are audited, which will be two or three years from now. (Participant 8)

The emerging aspect of the node was the need to be audit ready at all times. Participant 19 explained the compliance requirements resulted in a more centralized concept where continuous monitoring of grants by managers takes place. With capacity already strained in recipient organizations, employing continuous monitoring tools might

require basic audit transformation (Appelbaum, Kozlowski, Vasarhelyi, & White, 2016).

There are six sub parts to the uniform guidance (Federal Register, 2013). A federal

government participant explained how their agency trains subrecipients in the new rules:

> In that is a module as it relates to recipient oversight and monitoring of their
>
> sub recipients as well as an entire module on sub part F of the uniform guidance,
>
> which is audit. In conjunction with both of these parts, we have a document that
>
> we put together called a Quick Start Action Planner, which is not all inclusive, but
>
> for each one of the six sub parts within the uniform guidance, we ask specific
>
> questions regarding the recipients' level of preparedness to implement the uniform
>
> guidance as it is outlined. (Participant 2)

Participant 3 from county government added one of the memorable quotes, "Well, the

first thing I would say is I have learned from observation and time in the industry that,

sadly, there's a lot of leaders of organizations who don't fully comprehend what it means

to be audit ready." Participant 4 from state government opined depending on the level of

grants management knowledge lower level staff possess, an organization may or may not

be audit ready regardless of leadership knowledge. This ties back to theme one where

training of staff and leadership on the uniform compliance rules is a critical strategy. A

state participant contributed one of the memorable responses to research question two:

> There is a strong correlation, however, between leadership knowledge and
>
> involvement with federal grants management and the number of audit findings or
>
> the findings ration. Ideally, leaders of recipient organization should have a basic
>
> level of knowledge of the Uniform Guidance so that they can steer their

organization on a path to successful full life cycle grant management. Strategies they should be using are: 1. Training all staff (including program, financial, procurement, and legal) that may be involved with the grant on how to interpret and implement the Uniform Guidance; 2. Develop strong relationships with the funder (either federal or pass through entity) to take advantage of technical assistance the funder may have to offer; 3. Network with other federal grant recipients through professional associations such as National Grants Management Association, Association of Government Accountants, etc. to understand industry issues, concerns, and solutions. (Participant 4)

Two state government and one nonprofit participant (Participants 4, 15, and 18) expressed the importance of collaboration between departments. Specifically, the nonprofit participant offered:

I think the most important strategy that organizations are using is a lot of the collaboration between departments. For example, between the accounting department, the purchasing or procurement department, and the grants division collaboration among the departments to ensure that there is consistent oversight on the grants as far as not just the financial side, the procurement record retention, making sure that we're following all of the grant policies in the event of an audit, that the consistent oversight in collaboration between the departments. (Participant 18)

One participant went as far to state that single audits are a waste of government money. The private sector participant offered:

If you think about audits, they are incredibly expensive to be performed annually, every year after year. The government almost never issues a management decision on any of those audit findings. Single audits do not identify the kinds of issues that a single grant project audit identified. So, they are not helping in having that level of internal controls and having that kind of documentation and insurance that they are meeting the government's requirement. I think they should instead spend the money upfront to have a capacity audit done and be trained in exactly what the federal government thinks is adequate for documenting compliance with all of the federal grant requirements. (Participant 6)

Finally, an area with scant information in the literature was the need for a single interpreter of the grant compliance rules and regulations. "Differing agency interpretations of common rule requirements has long been a problem in assurance of grant compliance" (Participant 6). Marque (2011) found that grant recipients do not have options to dispute audit findings based on the interpretation of the uniform requirements. Marque recommended the federal government set up a grant and cooperative agreement appeals board as recourse to the compliance rules. I have not found current literature on the subject of compliance interpretation and was asked by a participant to include a description of the problem in the findings. Figure 13 is the word tree for the audit ready theme. The search criteria were the term audit ready versus the interview transcripts. In the tree, I show the relationship of words used by the participants and the next stream of five words.
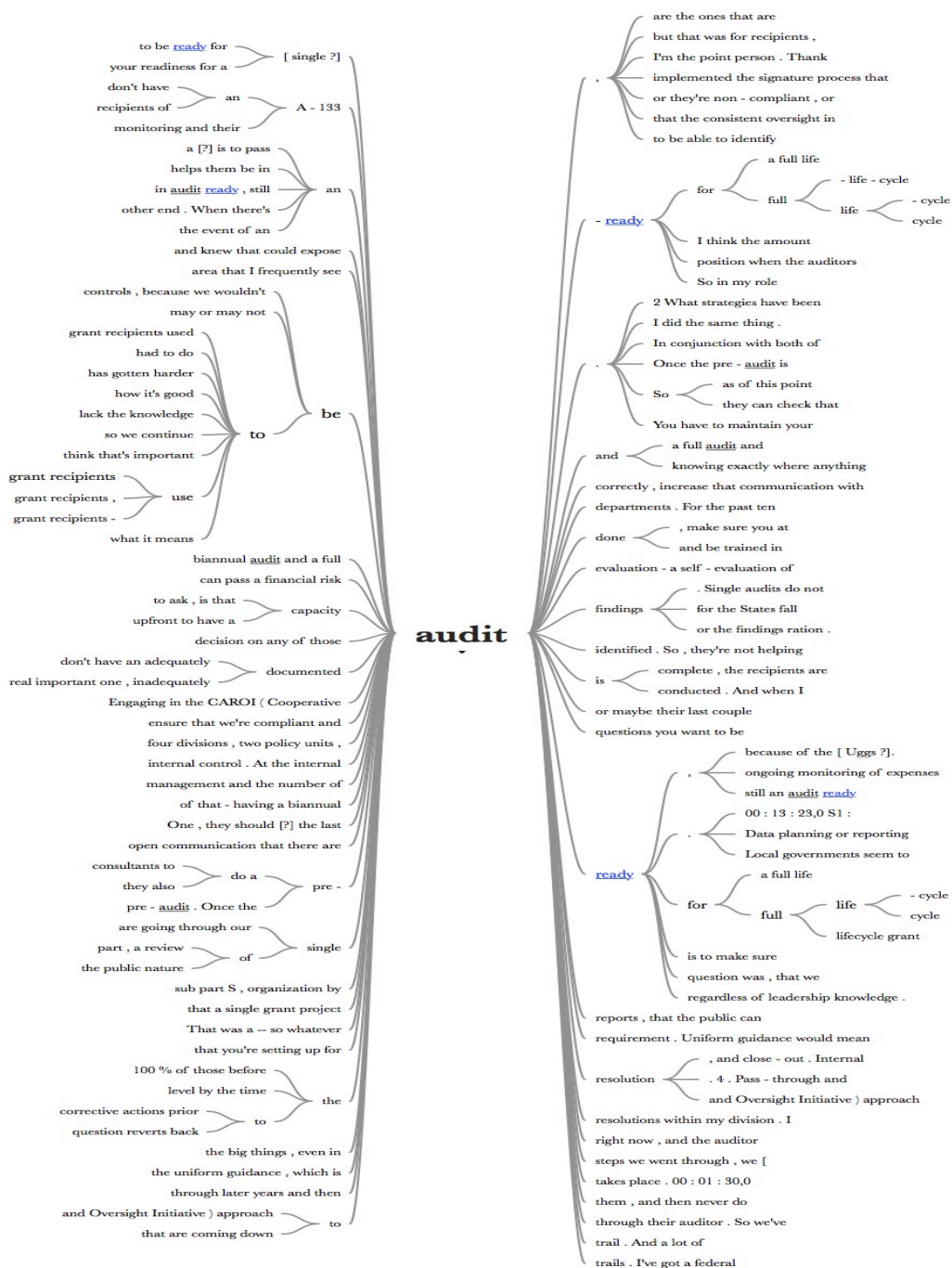
Figure 13. NVIVO word tree of the search term "audit ready" against the interview transcripts.

The findings from theme three do not disconfirm any of the peer reviewed studies in the literature review. There were 48 references to audit readiness including stemmed words. The data from the interviews reinforced the information in the literature. Similar to themes one and two, however, there is a gap in the literature between private sector audit studies and those of grant recipients. One reason is the compliance rules for federal awards do not receive much attention in academia with the exception in education research grants. Garven (2015) published an article about nonprofit basics, which included valuable information on nonprofit accounting and auditing. The gap in the literature indicated a need for more peer reviewed research in federal award recipient audit readiness. From the data I identified eight areas of emphasis in the audit ready theme. Figure 14 is a mind map of participant descriptions on the need for recipients to have written policies and procedures. A review of the eight aggregate compliance strategies in the node highlighted the complexity of audit requirements and the challenges recipients face to be audit ready.

Figure 14. XMind Map of participant descriptions of strategies to be audit ready.

Theme 4: Recipients Need To Have Knowledge And Understanding Of The Office Of Management And Budget Compliance Rules. I coded 29 instances of understanding the compliance rules. Most of the participants (Participants 2, 3, 4, 5, 8, 9, 13, 14, 15, 17, 18, and 19) believed leaders of organizations should receive training on the Uniform Compliance requirements. Participant 4 stated, "Ideally, leaders of recipient organization should have a basic level of knowledge of the Uniform Guidance so that they can steer their organization on a path to successful full life cycle grant management." Theme five ties in with theme one: *Recipients need grant compliance training programs*. Training is a necessary component to the achieving knowledge. One participant noted:

> I'm like a guidance counselor. So I try to guide people and tell people what the rules are whether they choose to-- I don't want to say whether they choose to comply, because eventually they comply, but whether they catch on initially, sometimes it takes people a while to grasp the concept that I'm telling them about the regulations and new regulations, and now things have to be done this way, et cetera, et cetera. (Participant 14)

I considered keeping the strategy for understanding the compliance rules under theme one, however, I developed a separate theme because of its relationship to the topic. Effective training programs include compliance in full life cycle grants management (Participant 4) and "the auditor has asked numerous questions about the uniform guidance" (Participant 3). Some of the participants believed organizations are using the same strategies for compliance:

I think it's the same strategy they used for the former guidance as well, and that is to make sure that they have all their policies and procedures in writing, that their internal controls are very strong, that their staff has at least annual training on all processes of grants management - the full life cycle; not just preaward, but pre and postaward, and that they also do a preaudit evaluation - a self evaluation of their organization - to prepare. (Participant 8)

"In terms of requirements, very little has changed that I have seen for us" (Participant 7).

Participant 9, a private sector participant added:

A lot of folks talk about how earth shattering or ground shaking the uniform guidance has been. It just hasn't been my perspective, and some of that might because I am no longer working directly as a recipient, but I still don't think so. In the uniform guidance, a lot of it is a compilation of prior guidance documents which are substantively the same, and not just substantively the same. I think overall, probably less than 3% of the language in these guidance documents have changed.

Another private sector participant stated:

I think there needs to be more clarity from the Office of Management and Budget. I think they need to come out with all their technical corrections pretty soon. They already have some and they are frequently asked questions. And they also need to provide guidance to the federal agencies that says whether that-- those frequently asked questions, the answers to those are a federal regulation, which we know they are not. So, what do we do with them? And a lot of people are relying on the

FAQs right now instead of the federal regulation. And until the regulation is

changed, we have to go by the federal regulation because it still precedes anything

except statutory law. (Participant 8)

Another perspective from one of the state government participants was that most people

were not aware of the uniform requirements (Participant 14).

There was scant new peer reviewed literature about the subject of Uniform

Compliance Rules. While some of the participants did not see much of a change in the

rules, Ashenfarb (2015) suggested that significant changes exist in the rules for

nonprofits and subrecipients. Ashenfarb also noted an annual supplement to the

compliance rules published by the Office of Management and Budget provides annual

updates. Also, through these annual updates, grant recipients better understand what

auditors look for during their single audits (Ashenfarb, 2015). In the literature review, I

listed Ashenfarb's seven suggestions to achieve a successful audit by complying with the

rules. Garven (2015) published an article about nonprofit basics, which included basic

information about the Uniform Administrative requirements and a reference to

Ashenfarb's seven suggestions for a successful audit. Theme 5 ties directly to both

management theories presented in the conceptual framework. Figure 15 is the word tree

for the knowledge of the Office and Management Budget rules. The search criteria were

the term knowledge versus the interview transcripts. In the tree, I show the relationship of

words used by the participants and the next stream of five words.
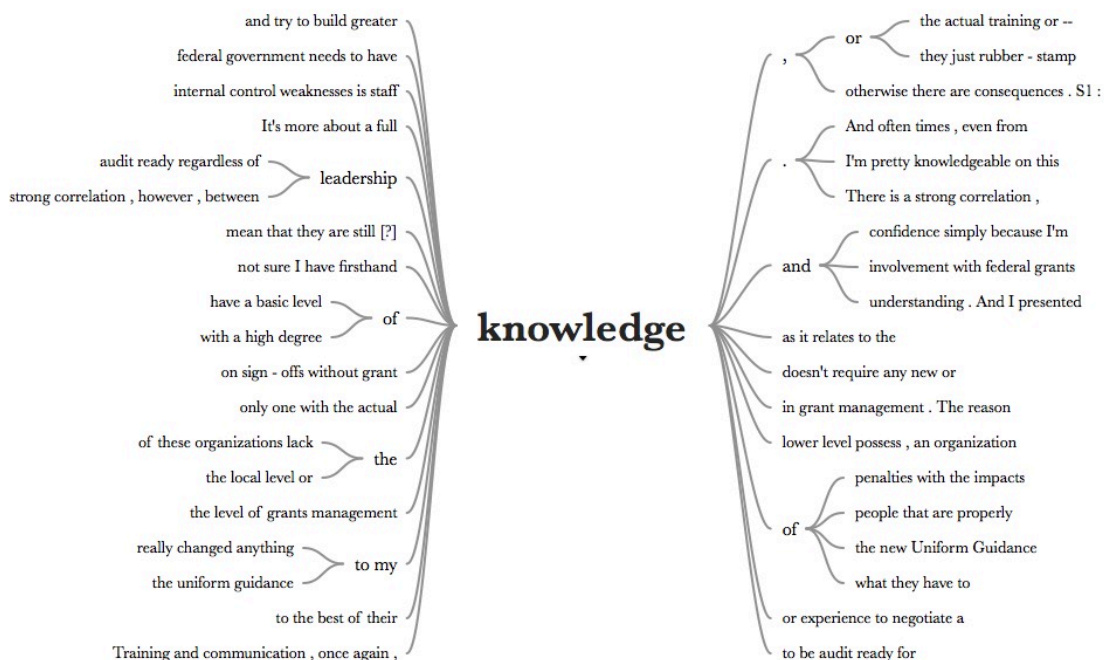
Figure 15. NVIVO word tree of the search term "knowledge" against the interview transcripts.

From the data, I identified five areas of emphasis in understanding the Office of Management and Budget *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards*. Figure 16 is a mind map of participant descriptions on the need for recipients to understand the final rules for complying with federal awards. A review of the five aggregate strategies in the node reflected the importance of understanding the rules.
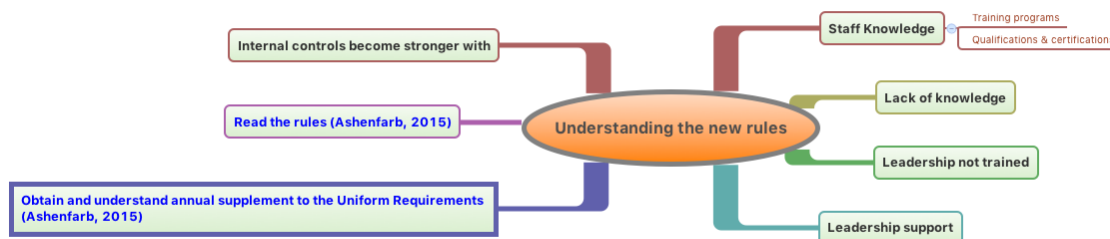
Figure 16. XMind Map of participant descriptions of understanding the Office of Management and Budget rules for federal awards.

Theme 5: Recipients Need To Efficiently Allocate Resources In Capacity. I coded 26 references to capacity or resources. In response to the subquestion about indirect costs, there were 13 references to indirect costs. More than half of the participants (Participants 2, 3, 4, 5, 6, 7, 8, 9, 12, 15, 17, 18, and 20) believed organizations should take advantage of their negotiated rate or the de minimus. Participant 2 commented:

> I think the enhancements and changes as it relates to indirect cost will help to improve the area in that-- and the uniform guidance indicates that if you have a negotiated rate, you, as a prime recipient, you're entitled to that rate unless the federal agency, in essence secured the approval or the head of the agency has gone forward and published the rationale and the reasons for not allowing full, indirect cost reimbursement.

A county government participant offered:

> The indirects, that is something that I have been tasked to do since I have always been a proponent of indirects - but to bring in more indirects. That's simply telling your people that you need to include them in your budgets when you prepare your

> proposals. If they are allowed by the grantor then we charge for them. We have a cost allocation plan done annually, and from that we have our indirect costs derived for each department. So each department applies their indirects as they can and as they should. (Participant 3)

Another memorable quote from a county government participant I believed important for the reader included:

> If you've never had a negotiated indirect cost rate with a federal agency, then you can opt to just use a 10% de minimus indirect cost rate. You can do that indefinitely. A lot of people have misunderstood that and thought, "Well, now you have to apply your-- go get one," and it's like, "No, you don't." If you're not big enough, a 10% de minimus is fine and you can use that forever. But one day you might find that you actually have a higher indirect cost rate, and you don't want to use 10% anymore. Our rates are all over the place. We have some that are 9 or 10% and some that are 17, 18. One of them-- I think the highest is like 38%. (Participant 3)

Capacity includes areas such as training and grant IT systems. Training was considered a part of capacity with participants (Participants 2, 3, 4, 5, 6, 8, 9, 14, 15, 17, 18, 19, and 20) because having the knowledge and skill to be audit ready is a capacity issue. Indirect costs was important with the rules because if an organization does not have a previously negotiated rate then the recipient can ask for 10% de minimus (Participant 4). One private sector participant offered:

Nothing is going to change because from what I'm hearing from recipients as I
have gone around - pretty much, I went East Coast, West Coast, South, and North
- they were all telling me that they are not going to be able to ask for indirect
costs because one, either they have a permanent rate that was not at all relevant
now because it's eight years old and you can't even just take the 10% rate. The
states are refusing to pay them, and the local government refuses to pay the
indirect costs. If they do claim additional indirect costs, it's not going to mean that
they get any of their money, it just means they are going to have to ask that from
direct expenditures for the indirect costs, which never usually go over well with
the organization because we want to be able to continue to provide the services
that they were providing. I just think that there has to be something - some kind of
funds or something being made available - to cover indirect costs or to cover the
training, or to cover the IT systems that they could purchase. (Participant 6)

Most of the participants (Participants 2, 3, 4, 5, 6, 7, 8, 9, 12, 15, 18, and 20)
offered opinions on indirect cost recovery as an important part of capacity because of the
administrative burden that comes with the management of a grant in the full grant life
cycle. Participant 17 stated that de minimus is not tied to capacity because the indirect
costs are already in the grant. It is difficult to implement a federal grant funded program
because of the indirect costs of administrating the grant (Participant 15). Another
nonprofit stated:

We've never had a federally approved indirect cost rate, so this new de minimus
indirect cost rate that's allowed for the new guidance at 10% rate will potentially

help to improve resources at the recipient level for those colleges that maybe--

especially the smaller ones that didn't have a federally approved rate in the future.

(Participant 18)

A private sector participant added that recipients must be technically adept and more

aggressive in going after the indirect costs because budgets are tight (Participant 20).

Participant 17, a private sector Certified Grant Management Specialist opined:

> If you have an organization that's ever charged indirect costs historically, but then
>
> begins to use the de minimus rate, if it ever wants to implement the de minimus,
>
> we are going to impact the amount of work that they can perform, because it's
>
> coming out of the same size bucket, or pool of dollars. That's going to be the
>
> challenge from a practical standpoint in terms of utilizing the de minimus rate, but
>
> generally speaking I haven't heard of many organizations that are planning to use
>
> it. (Participant 17)

Another private sector participant offered this view of the federal government on indirect

costs:

> I know that they were hoping that they were improving indirect cost rates, but I
>
> can tell you in my experience, the government is far, far behind, sometimes five
>
> to eight years behind, in addressing and finalizing indirect cost rate proposals for
>
> recipients. So, the recipients are generally operating on either a provisional rate or
>
> the last rate that was approved, which can be that many years behind, including
>
> not keeping up with what the indirect costs are in managing it. So, those changes
>
> in the indirect cost rate have not, I think, provided additional resources until they

fix the government's efficiency in keeping up with the indirect costs rate.

(Participant 6)

Finally, one nonprofit participant described the situation of hiring practices and enhancing their knowledge through training and communications practices (Participant 5). "Some hire consultants to do a pre audit. Once the pre audit is complete, the recipients are able to make the necessary corrective actions prior to the audit." (Participant 1) The purpose of the capacity subquestion on indirect cost rates was to elicit a rich description from participants on indirect costs. The majority of the participants described how indirect costs are there to help recipient organizations improve capacity and reduce the administrative burden (Participants 2, 3, 4, 6, 7, 8, 9, 10, 12, 15, 18, and 20).

The findings from theme six do not disconfirm any of the peer reviewed studies in the literature review. In fact, participant descriptions directly support the literature review under the heading: lack of agency and recipient resources. A new search using the keywords *capacity* and *recipient resources* revealed no new literature. A keyword search using the words *indirect costs* did produce new resources. There was one peer reviewed article that contradicted some of the participant's comments where the indirect costs come out of the grant. Ledford (2014) said thinking indirect costs come out of the grant funds was a common mistake made by grant administrators. The mistake made by recipients is that the negotiated rate comes out of the award (Ledford, 2014). Ledford went on to state there was a gap between the negotiated rate and the actual calculated rate among top research universities. Korn (2015) stated there was a variance among the recovery rates for negotiated and actual rates among the academic community. Sanberg,

Genshaft, and Sarkar (2015) believed the gap between negotiated and actual rates to be

larger than what Ledford presented because of the increase in demand for core facilities

and research funds as universities become more trans disciplinary. The data revealed a

disparity among the use of indirect costs or de minimus. There needs to be more

information available to recipients to take advantage of indirect costs at the very least, to

reduce administrative burden. Figure 17 is the word tree for the capacity theme. The

search criteria were the term capacity versus the interview transcripts. In the tree, I show

the relationship of words used by the participants and the next stream of five words.
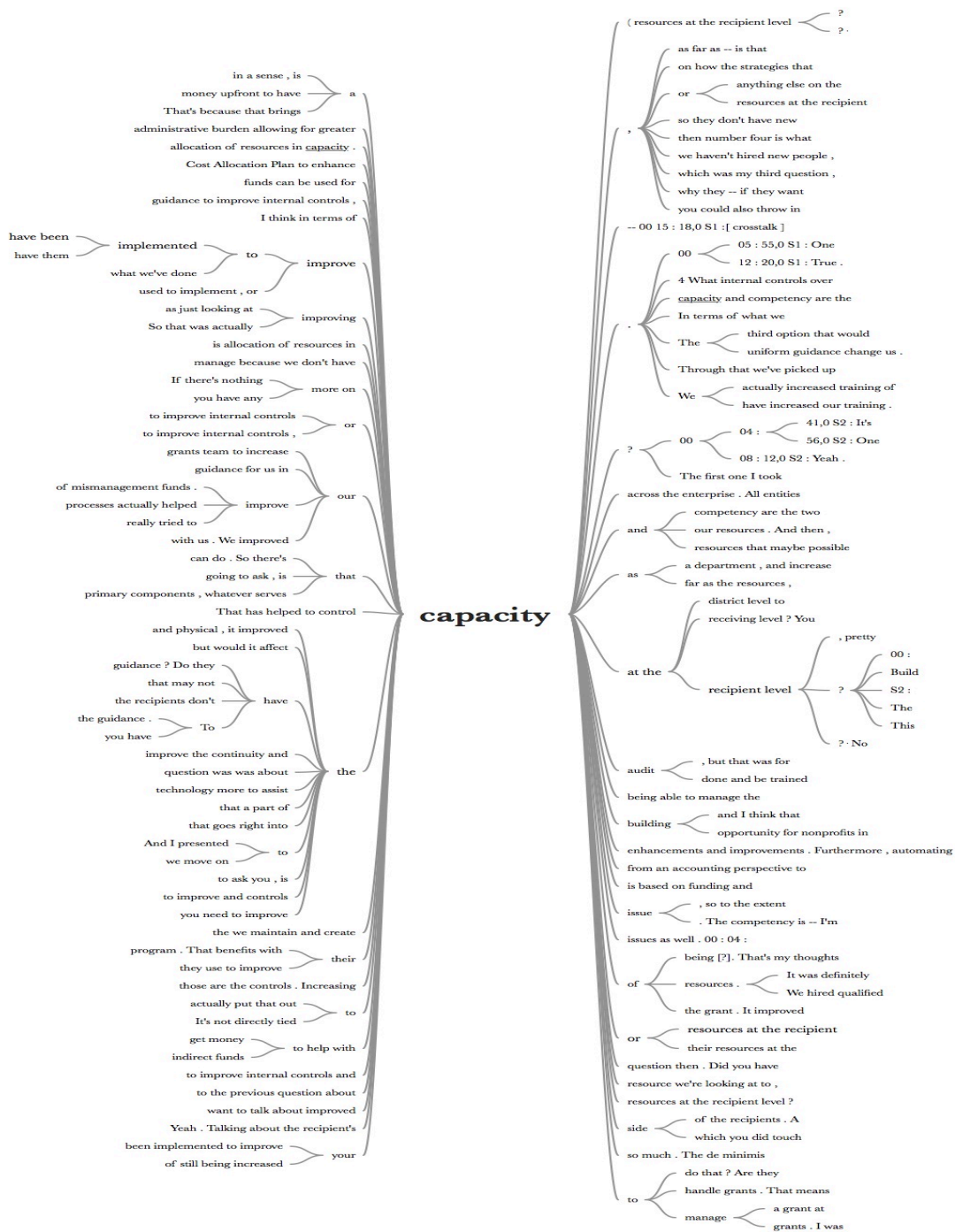
Figure 17. NVIVO word tree of the search term "capacity" against the interview transcripts.

There were 54 references to capacity in the interview process not including when used by the researcher. From the data, I identified six areas of emphasis in improving capacity and resources for grants management. Figure 18 is a mind map of participant descriptions on strategies for improving capacity at the recipient level. A review of the six aggregate strategies in the node highlighted where might increase capacity.
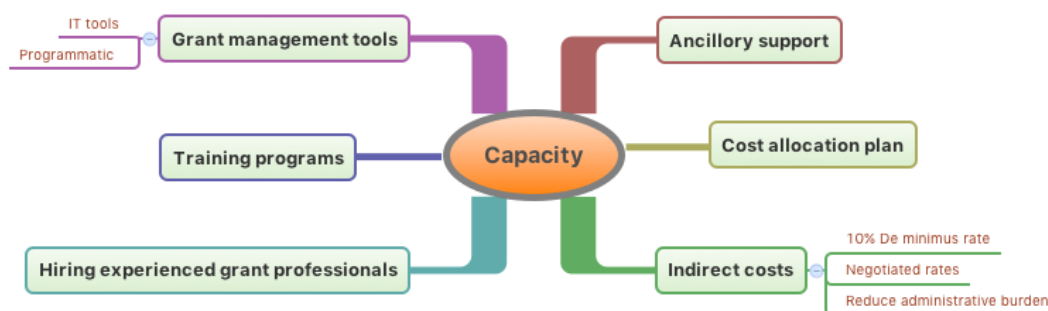
Figure 18. XMind Map of participant descriptions of strategies to improve recipient capacity.

Theme 6: Recipients Need To Implement Best Practices. I coded 35 instances of best practice references. Participant 8 stated, "I think that the best strategy has been training." GGMS 9 believed recipients and grantors needed a better awareness of their internal staff resources to determine whether they received an appropriate level of training. Participant 4 recommended each state have a high level central office with oversight and strategic leadership responsibility. Participant 19, from a nonprofit organization stated there was support provided to attend annual grants conferences. Participants 4, 7, 9, 14 and 17 touted professional associations as an excellent source for

grants training and certification. Two good examples are the National Grants

Management Association for which the participants have membership and the

Association of Government Accountants. In referring to the importance of professional

association membership and attending conferences, one former National Grants

Management Association board member added:

> I'm a certified grants management specialist. I'm also a former board member of
>
> NGMA, but I really do believe that both at the recipient levels as well as the
>
> donor level, particularly the federal donors, that there is a greater awareness or
>
> attention on making sure that - at least internal staff resources - that they have
>
> appropriate levels of training. So we see more interest in kind of certification
>
> programs or if not certification programs, training programs. (Participant 9)

A majority of the participants described having a good training program in place

as an important best practice for any organization. Participants 4, 5, 9, 14, 17, 18, and 19

recommended having a widespread training to include the organization's leadership. One

nonprofit participant added:

> We actually increased training of grant professionals and staff. Once again, like I
>
> said, in an ideal organization, the more people that understand the grant
>
> management program, it improved the capacity of the grant. It improved
>
> everybody's understanding what the grant impact was supposed to be. To
>
> students, or to clients, or to whatever effort we were working on for the specific
>
> grant. (Participant 5)

Four participants described hiring practices of an organization as best practices. Participant 1, 5, 8, 11, and 17 recommended hiring personnel with grant experience. Participant 8 stated, "One thing that I think is important is to make sure you hire people to do the internal controls part of it and the financial controls that have prior grants management experience. Participant 12 offered that the division of labor helps to improve capacity and continuity. A private sector participant added:

> I think it's using both staff augmentation where you did have different
> organizations that may hire temporary employees, or programs that do like that,
> who are 100% dedicated to a Federal program. That benefits with their capacity,
> so they don't have new employees on staff, or that are being catered at the first
> benefit structure but, rather, they've got contract employees that they are paying
> based on actual workload, substantially more beneficial for the recipients. The
> second component is there is an actual ramp up of staff. Depending on how big
> your program is, periodically it may be more beneficial to actually hire some
> appropriate specific staff who are on staff, and that are technically employees of
> that organization until a given program is adopted or comes up. (Participant 17)

Finally, Participant 4 listed continuous process improvement for both pre and post award assessments as a best practice. Participant 1 suggested a better utilization of accounting systems. There is some medium to smaller private sector organizations and nonprofits that do not use continuous monitoring tools because of cost and level of staff expertise (Appelbaum, Kozlowski, Vasarhelyi, & White, 2016). A nonprofit participant described both situations where some organizations had grant management systems in

place. "I walk into organizations that really need that systematic help" (Participant 5). With the requirements for transparency in federal agencies, timely and effective communication with recipients are an important strategy to improving internal controls (Participant 1). Participant 19 stated "we implemented a new financial system across the board and we have improved our financial system." A private sector participant added:

> What I see agencies doing is, stepping back and looking at the grant management process as a whole, and rethinking how they are managing the grant and the grant life cycle. Thus, they are then asking themselves questions that auditors would ask. How do I-- how am I documenting my risk assessment? How am I selecting my grant recipients? How am I monitoring the recipient's activities to the cooperative agreement participant activities? They are really - I think - taking a more holistic approach to grants management.

Other best practices include improved coding oversight to ensure accurate coding to support the resources to the grant (Participant 5). Another best practice recommended by a private sector participant was to conduct a risk assessment and gap analysis between the organization's policies and procedures and the uniform guidance (Participant 17). One county government participant highlighted the importance having leadership support:

> If we're going to do this, then I need to know that I have got complete buy in from the top down. One of the neat things that I had was our county administrator come to one of our monthly seminars and talk to the crowd. The thing is that these organizations have to get engaged. And that comes from the top down. They have got to sell the value of what they are doing. (Participant 3)

There were 45 references to best practices in interview transcripts. The findings

from theme four agree with the peer reviewed and government studies in the literature

review. The GAO discovered best practices and lessons learned from Recovery Act

spending through October 31, 2013 (GAO, 2014b). The government must incorporate the

best practices of private industry as electronic reporting becomes more widespread and

implement the best strategies for successful reporting (Irani et al., 2012; Maitner, 2011).

The data from the interviews will contribute to the literature; however, more research was

needed in the best practices of successful grant recipient organizations. Figure 19 is the

word tree for the best practices theme. The search criteria were the term *best practices*

versus the interview transcripts. In the tree, I show the relationship of words used by the

participants and the next stream of five words.
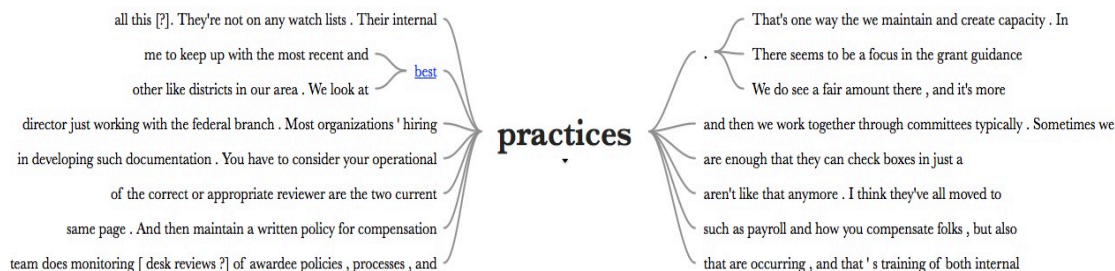
Figure 19. NVIVO word tree of the search term "best practices" against the interview transcripts.

From the data, I revealed nine areas of emphasis in the best practices theme.

Figure 20 is a mind map of participant descriptions on the need for recipients to

incorporate best practices of the industry. A review of the nine aggregate compliance

strategies in the node reflected the importance of using best practices to improve internal controls.

Figure 20. XMind Map of participant descriptions of strategies for best practices.

Relationship to the Conceptual Framework

The compliance and systems thinking theories served as the conceptual framework for this qualitative descriptive study. An NVivo word frequency search revealed compliance mentioned 35 times with a weighted coverage of 18% in the transcripts. An NVivo word frequency search revealed system and stemmed words systems and systematic were mentioned 72 times with a weighted coverage of 38%. I created the data driven NVivo codes based on the conceptual framework of compliance and systems. Theme one ties to compliance theory and systems thinking in the conceptual framework. As part of the compliance theory, training is a requirement for compliance where management might incorporate Etzioni's (1975) three types of power in an organization. Recipient training ties to systems thinking as part of the holistic approach to the evaluation training programs for federal award recipients. Theme two tied strongly to

the conceptual framework, especially compliance theory where organizations use coercive power to attain compliance with regulations and be audit ready. Analysis of theme three supported the conceptual framework of the study. Both compliance theory and systems thinking relate to technical compliance and the development and maintenance of a grant system to be audit ready. Analysis of themes four, five, and six supported the conceptual framework of the study. Theme four and five tied to the systematic approach to systems thinking. Both compliance theory and systems thinking related to technical compliance and the holistic approach to best practices in theme six.

Applications to Professional Practice

The purpose of the qualitative descriptive study was to explore strategies for grant recipients to implement federal award compliance requirements for full life cycle grant management implementation. Participant descriptions of the current strategies recipients use to comply with federal awards provide actionable information grant recipient organizations might use to improve internal controls to be audit ready. The themes provide a road map to successful compliance with the descriptions from Certified Grant Management Specialists from every business sector of the grant community. Grant Managers in recipient organizations may benefit from new strategies described in this study such as implementing new individual training programs and monthly training seminars; both strategies increased readiness for full lifecycle audits in some county and state grant recipient organizations as described by participants.

In the study findings, the participants recommended the recipients take a proactive approach in preparation for a single audit (Ashenfarb, 2015). Participants' description of

the need for recipient training was consistent with the Uniform Guidance for pass through

entities to provide training and technical assistance to subrecipients (Federal Register,

2013). Participant perceptions concerning indirect costs varied even though the Office of

Management and Budget rules provide specific guidance. Some of the participants

believed the issue of indirect costs required more clarification while others had a clear

understanding of the process. Participants suggested recipient organizations revisit their

negotiated rates or negotiate an appropriate rate with the federal government to provide

adequate oversight and governance of federal grants.

The need to understand the compliance rules was an important factor that

emerged from the findings. Training was the central theme of a majority of the

participants while others espoused hiring experienced grant managers as a way to

improve capacity. Having tailored standard operating procedures (SOP) in place is also a

good business practice. Another major theme that emerged was for organizations to have

written policies and procedures in place based on the guidance and subsequent updates.

Along with training, written policies and procedures improved internal controls and

presented the best opportunity for recipients to have a successful audit.

Implications for Social Change

In 2013, improper payment to recipients of federal awards reached $106 billion

(Kalustyan, 2014; Werfel & Steinhoff, 2014). The amount increased to $124 billion in

FY2014 (Jacob, 2015). Grant programs administered by the federal government and

States contributed to the problem of improper payments because of high error rates. The

result of the improved readiness strategies could decrease the amount of grant dollars

spent on administrative costs and provide a higher percentage of the grant monies to the intended program rather than administrative expenses. As a result, the general public, local communities, nonprofit organizations, and disaffected cultures benefit.

If implemented, the strategies to become audit compliant according to the Uniform Compliance Requirements for Federal Awards could improve or strengthen grant recipient organization internal controls. The improved business controls translate to a reduction in fraud, waste, and abuse, which helps to redirect grant funds back to their intended purpose to help state governments, local governments, and not for profit organizations on various community initiatives. The not for profit organizations include charitable, educational, or scientific for the advantage of the public interest.

Leaders of recipient organizations can benefit from increased strategies for compliance to federal award rules. Participants recommended robust training programs, improved hiring practices, and written policies and procedures to be audit ready at all times. The implementation of the best practices suggested by the participants in the study could help recipient organizations improve compliance and reduce error rates in grant administration. The subsequent reduction in error rates will reduce improper payments and ensure federal funds reach the intended grant recipient.

Recommendations for Action

I examined participant responses to the research questions and identified six themes for the development of strategies for complying with the uniform compliance requirements for federal uniform compliance requirements for federal awards. The target audience for the recommended actions are recipients of federal awards. It is also

incumbent to grantor agencies to pay attention to the findings of this study to fulfill their oversight roll and to provide better service to grant recipients. Figures 10, 12, 14, 16, 18, and 20 are a depiction of participant descriptions for each theme, which supported the identification of strategies and recommended actions for improvements in internal controls. Results from the study might guide leaders of recipient organizations to take the necessary steps for increased business processes. The following are steps to practical action.

Recipients need grant compliance training programs. In Figure 10, participants described strategies to improve training programs. Recipient organizations need to develop a staff training program that also includes leadership. Participants found program weaknesses in organizations where leaders of organizations did not involve themselves or receive training on compliance rules. Participants added that leadership support and buy in was a critical factor in successful audits. Members recommended the inclusion of quarterly workshops as part of the training program and increasing resources through indirect costs. Attending professional conferences such as the National Grants Management Association and the Association of Government Accountants are excellent training resources. Finally, working toward certification as a certified grants management specialists strengthens the staff knowledge and standing.

Recipients need written policies and procedures. In Figure 12, I indicated where participants described the lack of written policies and procedures as an internal control weakness in some recipient organizations. Participants recommended written narratives for the actual process, the development of an outline for how to conduct an

audit review, and the creation standard operating procedures. Participants emphasized recipients must always dot the I's and cross the T's.

Recipients need to be audit ready. In Figure 14, I listed where the participants described strategies to be audit ready. Eight compliance strategies developed from the descriptions. Chief among them was the ability to reconcile the books to a balance of zero back to the original line item of the grant. This is to ensure the recipient did not overspend nor underspend the funds. Participants described increased communication, collaboration among departments and agencies, and staff and leadership knowledge as audit ready strategies. Participants suggested three strategies for accountability including (a) determining who is accountable, (b) accuracy in reporting, and (c) being proactive in the grants management process.

Recipients need to have knowledge and understanding of the Office of Management and Budget Uniform compliance rules. Figure 16, are strategies recommended by participants to attain awareness of the uniform compliance requirements. The primary strategy was leaders of recipient organizations and their staff receive training on the new rules. Ashenfarb (2015) suggested personnel need to obtain and understand the annual Office of Management and Budget supplement. The strategy aligned with the participant descriptions who stated internal controls will become stronger with an understanding of the uniform requirements for federal awards.

Recipients need to efficiently allocate resources in capacity. In Figure 18, I described participant strategies to increase recipient function. Participants described six areas to improve capacity. They were additional support, cost allocation plan, indirect

costs, hiring practices, training, and the use of information technology tools. Participants suggested that a continuous training program and the practice of hiring experienced grant professionals are ways to increase capacity. The other primary factor is the use of a full lifecycle grant program. One of the participants described the programmatic aspect of grant management crucial to compliance. Finally, recipients need to have a negotiated indirect cost rate to reduce the administrative burden on grant oversight.

Recipients need to implement best practices. In Figure 20, I diagrammed nine best practices to improve internal controls. I covered most of these in themes one through five. One of the participants stated leaders of recipient organizations need to have a good system in place including (a) software grant program, (b) IT tools for searching and reporting, and (c) separation of duties. Another participant advocated a Continuous Process Improvement program through preaward and post award risk assessment, ongoing assessment and continuous monitoring. Finally, several members recommended recipients develop partnerships with federal awarding agencies and subrecipients.

Participants and leaders at the National Grants Management Association will receive an executive summary of the results. I intend to submit a peer reviewed article on the findings to the Journal of Government Financial Management. Further dissemination of the results will occur at a future professional associations' conferences that include grants management as part of their agenda.

Recommendations for Further Research

I used a purposeful sample of certified grants management specialists to collect data on strategies for recipients of federal awards to comply with the Uniform

Requirements. The data were collected using semistructured interview questions, which helped me present a rich description of the strategies used by professionals in the field. The study focused on the recipients of grants where future studies might extend the sample to the staffs or leaders who administer a grant. The structure of the literature review and design of this study provides a basis for any direction a future researcher would want to take the study.

One recommendation is for further research is a case study of a recipient organization training program. The focus might be on the leadership of the organization or the staff. Analysis of the organizational hiring practices for grant professionals might be added to the research because there may not be enough literature on the subject to conduct a separate study.

A second recommendation is for a case study or descriptive study on a nonprofit organization's single audit. Grant recipients must improve their internal controls to implement the OMB guidelines and could affect nonprofits the most (Martin, 2014). The focus of the analysis could be on the single audit finding and where the researcher studies the preparation, execution, and correction of material weaknesses of a single audit. The future study might include the effectiveness of policies and procedures in place for internal controls.

Finally, a grant management case study on the use of time and effort in a not for profit organization might provide strategies for correcting these material weaknesses after single audits. Five of the participants in the study found time and effort as a significant

internal control problem in nonprofit organizations. One member described time and effort the subject of grant fiscal management.

I conducted participant interviews by telephone, which took away the ability to observe facial expressions or body language. Future case studies or descriptive studies could include face to face meetings to help fill in the missing visual nuances of a questioned response. I limited the sample population to certified grants management specialists. Ideally, participation from both certified and noncertified grant managers could have benefited the results. Future studies might include noncertified grant professionals to explore the circumstances that lead to compliance problems, which may become part of the larger improper payment problem.

Reflections

I began my doctoral journey conducting a phenomenological study on the central premise of reducing improper payments in federal awards. Upon further consideration, I shifted to a descriptive. The descriptive study allowed for a successful research study. The goal was to find strategies for recipients of federal awards to comply with the Office of Management and Budget Uniform Requirements. The descriptive study provided rich data and findings for improved business process in the professional field of grants administration and oversight.

I had no preconceived biases to begin the study because I was new to the topic. After the literature review, however, it became difficult to suppress bias because information from government studies and peer reviewed articles provided some of the recommended strategies for compliance. I kept an open mind throughout and allowed the

descriptions from the participants become the strategies. The member checking process was an important part of completing the study because of participant feedback on the findings. One participant was adamant about including information on the need for a single interpreter of the grant compliance rules and regulations because differing agency interpretations have long been a problem in federal award compliance. I added this description to the theme three to keep in line with the credibility and transferability of the study.

Summary and Study Conclusions

I used a qualitative descriptive study to explore strategies for federal grant recipients to comply with the Office of Management and Budget's Uniform Requirements. I collected data from 20 certified grants management specialists who are members of the National Grants Management Association. The decision to use credentialed members to collect the data was purposeful sampling because the chances of achieving saturation of the data were greater (Suri, 2011). Another reason for the purposeful sampling was the need for participants to have extensive experience in the grant management field to provide actionable data to improve business processes at each level of the grant lifecycle. The purposeful sampling also provided credibility of the study.

I conducted telephone interviews with 20 participants and reached data saturation after eight meetings. I established dependability and confirmability of the study through a member checking process where I shared the findings with the participants to verify the results with them. The feedback and updates on the findings ensured accuracy to the

results. Finally, I assured transferability of the study with the use of NVIVO10 software

and the use of NVIVO codebooks for data and theories to code the information.

The purpose of the qualitative descriptive study was to discover strategies for

grant recipients to implement federal award compliance requirements for full life cycle

grant management. Study findings were consistent with the scant information available in

the literature review and added new information to support professional practices in the

grants management field. The coding of the data revealed 84 individual ideas that

synthesized into six themes. The first theme was the need for recipients of federal awards

to implement robust training programs to include monthly and quarterly seminars, the

attendance at professional conferences such as the National Grants Management

Association and Association of Government Accountants and certification programs. The

second theme was the need for recipients to have written policies and procedures for the

internal control processes, business processes, and procedures for preparing for a single

audit, which tied into the third theme of the need for recipients to be audit ready at all

times. The fourth theme ties into themes one through four, which is the need for

recipients to have a complete understanding of the Compliance Rules and annual

supplements. Theme five was the recipient allocation of resources in capacity. Recipients

need to take advantage of their negotiated rate or negotiate a new rate for indirect costs.

Of note, if recipients do not have a negotiated rate, they can capitalize on the 10% de

minimus rate. Indirect cost rates help federal award recipients reduce the administrative

burden of a complying with each grant. Participants also described hiring practices of an

organization as a way to increase capacity with qualified employees. Theme one ties in

with Theme five because a good training program in place helps the lack of capacity issue. Finally, a Theme six was best practices, which encompassed Themes one through five and individual strategies to improve internal controls.

The grant community both on the awarding and receiving side have made significant efforts to improve the process for which a grant was awarded, implemented, and closed out. More work needs to be done to improve internal controls to comply with Uniform Requirements for Federal Awards and subsequently reduce improper payments. Adopting the recommendations from the study might improve grant compliance at the recipient level.

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Appendix A: Consent Form

Start the text of each appendix on the first line after the heading. Do not skip a line. You are invited to take part in a research study exploring the problem that some grant administrators at state and local government agencies and some leaders of nonprofit organizations lack strategies for full life cycle grant management to implement the new Office of Management and Budget Uniform Guidance. The researcher is inviting 20 members involved with grants administration and management at various stages of the grant life cycle who hold the credential of a certified grants management Specialist (CGMS). This form is part of a process called "informed consent" to allow you to understand this study before deciding whether to take part.

A researcher named <Redacted>, who is a doctoral student at Walden University, is conducting this study

Background Information:
The purpose of the qualitative descriptive study is to explore strategies for grant recipients to implement new federal award compliance requirements for full life cycle grant management implementation. A minimum of 20 certified grants management specialists (CGMS) are to be interviewed. The participants derive from a U.S. based national grants professional association and have the specialized knowledge to provide strategies to improve the effectiveness of business processes for full life cycle grants management (NGMA, 2012). Through analysis of the collected data, the development of strategies to implement the new guidelines could potentially reduce the administrative burden on grant managers in state and local government and nonprofit organizations who receive and manage grants. The new Uniform Guidance included cost principles, audit, and administrative requirements for federal awards (Ashenfarb, 2015). The members participating in the study reside in different locations across the contiguous U.S. I will conduct semistructured telephone interviews with the participants where open-ended questions guide each interview in exploration of factors affecting implementation of the new Uniform Guidance. The data from the study could have a positive social impact by improving internal control processes, which have the potential for significant savings in taxpayer dollars and expand additional grant awarding opportunities.

Procedures:
If you agree to be part of this study, you will be asked to:
- Take part in a recorded telephone interview up to one hour in length at the convenience of the participant. Skype is offered as an alternative.
- The interview will consist of six open-ended semistructured questions provided in advance of the interview.
- The interview will be transcribed into a word document to develop relevant themes.
- Your name will not be used in the study and all information relevant to your interview is available at your request.

Here are some sample questions:
1. What strategies do leaders of organizations who are federal grant recipients use to be audit ready for full life cycle grant management according to the new Uniform Guidance?
2. What strategies have been implemented to improve internal controls (business processes) at the recipient level?
3. What strategies have been implemented to improve capacity (resources) at the recipient level?

Voluntary Nature of the Study:
This study is voluntary. Everyone will respect your decision of whether or not you choose to be in the study. No one at your professional agency will treat you differently if you decide not to be in the study. If you decide to join the study now, you can still change your mind later. You may stop at any time. If you know the researcher and you decline or discontinue participation, it will not negatively impact personal or professional relationships.

Risks and Benefits of Being in the Study:
Participating in this type of study involves some risk of the minor discomforts that can be encountered in daily life, such as reading about negative peer reviewed responses to this study. This is unlikely as this is a dissertation not published in a journal article. Participating in this study would not pose risk to your safety or wellbeing.

Results from the study could have positive implications to social change with the potential to identify strategies to improve the internal control mechanisms at the state and local government, and nonprofit level, which could lead to a reduction of improper grant payments. Also, to redirect of grant funds to their intended purpose.

Payment:
There are no payments being made to any individual for their part in the study. There will be no gifts, compensation or reimbursement of any kind for participation in the study.

Privacy:
Any information you provide will be kept confidential. The researcher will not use your personal information for any purposes outside of this research project. Also, the researcher will not include your name or anything else that could identify you in the study reports. Each participant will be assigned a unique identification code from *Participant 01* through *Participant 20* meaning Certified Grant Management Specialist participant one through 20. Data will be kept secure by saving all recorded and transcribed transcripts in a password protected computer file. All printed hard copy files are kept in a locked safe. Data will be kept for a period of at least 5 years, as required by the university. At the 5-year point, all data related to the study will be destroyed by the

most efficient and secure means available. All telephone interviews will be conducted on private telephone lines with no other people within earshot.

Contacts and Questions:

You may ask any questions you have now. Or if you have questions later, you may contact the researcher via telephone at <redacted> or email at <redacted>. If you want to talk privately about your rights as a participant, you can call <redacted>. She is the Walden University representative who can discuss this with you. Her phone number is [redacted]. Walden University's approval number for this study is 11-19-15-0341768 and it expires on November 18, 2016.

The researcher will give you a copy of this form to keep.

Statement of Consent:

I have read the above information and I feel I understand the study well enough to make a decision about my involvement. I confirm that I am 18 years or older. By replying to this email with the words, "I consent", I understand that I am agreeing to the terms described above.

Appendix B: National Grants Mangement Association Permission to Email Members to

Participate in Study

Tom,

I appreciate your patience. As you know, I have been on the road for NGMA travels and my email access has been limited.

The board has approved your request, please let me know what I can do.

Executive Director

From: Thomas Drabczyk
Sent: Friday, October 30, 2015 9:13 PM
To:
Cc:
Subject: Doctoral Proposal and Letter of Cooperation

Attached is my dissertation proposal and a letter of cooperation between the NGMA and me as the researcher. Right now, my proposal is with the University's Institutional Review Board (IRB) for approval. Technically I do not need the letter if you send out the invitation to participate to CGMS certified members. If I have the letter of cooperation, it strengthens my IRB application. It is very important that the members know their right to withdraw from participation at any time and I took care to make that as transparent as possible.

The bottom line is the research is important to what the NGMA members do everyday and the CGMS qualified members were purposefully selected for their knowledge of what happens in the Grant Life Cycle and how recipients are implementing the new uniform guidance requirements. Let me know if you have any questions. The invitation to participate cannot be sent out until I get approval to conduct the research. However, we can go ahead and provide the Letter of Cooperation to the IRB for their consideration of my proposal.

I can't thank you enough for helping me in my journey.

Regards,

Tom

Appendix C Sample Email Invitation to Potential Participants

From: Thomas Drabczyk, Walden University Doctoral Candidate

To: CGMS Certified Professional

Subject: Invitation to Participate in Grants Management Research

Dear NGMA Professionals,

You are invited to take part in a research study exploring the general business problem that some grant recipients do not have the knowledge to be audit ready for full life cycle grant management implementation. Specifically, the business problem the research study explores is some leaders of organizations, who are federal grant recipients, lack the strategies needed for full life cycle grant management to implement the new Office of Management and Budget Uniform Guidance for Federal Awards.

The researcher is inviting 20 members involved with grants administration and management at various stages of the grant life cycle who hold the credential of a certified grants management specialist (CGMS) to participate in the study. The attached form is part of a process called *informed consent* to give you a good understanding of the study, any risks, and potential benefits before you decide whether to take part in the study. The informed consent process includes detailed information about maintaining the privacy of the research participants.

The study is voluntary. Everyone will respect your decision of whether or not you choose to be in the study. No one at your professional agency will treat you differently if you decide not to participate in the study. If you decide to join the study now, you can still change your mind later. You may stop at any time by sending an email to: [redacted]. If you know the researcher and you decline or discontinue participation, it will not negatively impact personal or professional relationships.

After reading the attached consent form and you want to be a research participant, simply reply to this email according to the *Statement of Consent* at the bottom of the consent form. If you want to talk privately about your rights as a participant, you can call [redacted]. She/He is the Walden University representative who can discuss this with you. Her phone number is [redacted]. The IRB approval number is 11-19-15-0341768 and it expires on November 18, 2016.

Thank you for your consideration!

Respectfully,
[redacted]

Appendix D Permission from the Government Accountability Office to use Graphics

from Their Reports to Congress

Czerwinski, Stanley J ██████████████████
Attachments11/21/13

to me

We are delighted you are using our work, Tom, so, of course, approved. Good luck,
Stan

From: Thomas Drabczyk ██████████████████████████████]
Sent: Thursday, November 21, 2013 10:01 AM
To: Czerwinski, Stanley J
Cc: Davis, Beryl H
Subject: PERMISSION REQUEST TO REPRINT OR ADAPT GAO GRAPHICS FOR
DOCTORAL STUDY ICO THOMAS E. DRABCZYK

Thomas E. Drabczyk, Sr.
████████████████████
████████████████████

November 21, 2013

Mr. Stanley J. Czerwinski
Director, Strategic Issues
United States Government Accountability Office
████████████████████

Dear Mr. Czerwinski:

I am writing a doctoral study for the terminal degree of Doctor of Business
Administration (D.B. A) at Walden University, and will conduct a qualitative
phenomenological inquiry into the problem of improper payments in grants
management. The title of the dissertation is "Grants Management: The need to
improve compliance, accountability, and oversight of federal grant funded
programs."

For the purposes of providing a background of the problem, I would like permission
to reprint the Government Accountability Office (GAO) graphic: "Grant Life Cycle of
Federal Awarding Agency." If approved, the below graphic reflects how the life cycle
is depicted in the dissertation with appropriate citation.

 Grant Life Cycle.png

Figure 1. Grant Life Cycle of Federal Grant-making Agency and Grant Recipient.
Reprinted with permission from the GAO. See Appendix C.

Additionally, I would like permission to use a second graphic I adapted from a recent GAO study (appropriately cited) to graphically depict the conceptual framework of my study. If approved, the below graphic reflects how the life cycle is depicted in the dissertation with appropriate citation.

 Conceptual Framework.png
Figure 2. Factors affecting grant management and oversight of grant payments. Adapted from "An Overview of Federal Funding Levels and Selected Challenges," by the GAO, 2012c, GAO Reports, 1-55. Copyright 2012 by the U.S. Government Accountability Office. Printed with permission of the GAO (see Appendix C).

APA Reference:

Government Accountability Office (GAO). (2012c). An overview of federal funding levels and selected challenges. GAO-12-1016. Retrieved from http://www.gao.gov/products/GAO-12-1016

Both figures graphically depict the complex problem of improper payments and are important to readers of the study to get a holistic view of the multi-layered administration process. This letter and your response will be added to the appendix area of the study. Thank you very much for your time.

Sincerely,

[REDACTED]

Appendix E: Permission to Reprint the Digital Accountability and Transparency Act

Summary Table

From: **Hudson Hollister** ███████████████████
Subject: Re: Request for Permission to Use the DATA Act Summary Table from DTC Website in my DBA Dissertation
Date: December 1, 2013 at 1:19 PM
To: Thomas Drabczyk ███████████████

Feel free to use it! Just be aware that Congress might not pass this specific version of the bill--meaning the table might not accurately describe the law after passage.

Best,

Hudson

Sent from my iPhone

On Dec 1, 2013, at 11:14 AM, Thomas Drabczyk <████████████████> wrote:

Mr. Hollister,

I am writing my doctoral study for my Doctor of Business Administration (D.B.A) degree, and conducting a qualitative phenomenological study on Grants Management and the need to improve compliance, accountability, and oversight of federal grant funded programs. As part of my literature review, I came across the Data Transparency Coalition website when looking for information on the DATA Act. More specifically, the table titled the DATA Act Summary on the DATA Act page. To provide clarity in my literature review, I would like to not only reference the table, but also reprint the entire table and present it in my dissertation (appropriately citing it as DTC's table). Would you be willing to grant me permission to use your table, properly credited and cited using APA 6th edition format. I would be greatly appreciate it. Thanks you for your time.

If approved, this is how the table is referenced in the dissertation:

Data Transparency Coalition (DTC). (2012). *DATA act*. Retrieved from
http://datacoalition.org/issues/data-act.html

Respectfully,

Thomas E. Drabczyk, MBA
DBA Candidate, Walden University
Project Management Specialization

Appendix F: Permission to Adapt Interview Preparation Techniques

From: Magnus Englander ██████████████████
Subject: Re: Permission to Adapt Interview Preparation Techniques from Journal Article
Date: February 3, 2014 at 4:46 AM
To: Thomas Drabczyk ██████████████

Thomas,

I do not understand what you mean by "permission to adapt." As long as you cite the article correctly, and state that it is your own interpretation, based on the content that you have read, then it should not be any problem. Interpretations are still free. Nevertheless, I am unable to read your illustration that you've pasted. I have tried to make a copy of it and paste it to a word document, but I was still unable to read it. It is too small, I guess, so it is fuzzy. I would be great if you could blow it up a bit and to perhaps present it to me in a document or pdf. I would be interested to see it.

Good luck with your studies!
Sincerely,
Magnus Englander, Ph.D.
Malmö University

On 31 Jan 2014, at 6:08 PM, Thomas Drabczyk <██████████████████> wrote:

From: Thomas Drabczyk ██████████████████
Subject: Permission to Adapt Interview Preparation Techniques from Journal Article
Date: January 31, 2014 at 6:08 PM
To: ██████████████████

Dr. Englander,

Good evening sir! I am in the process of writing my doctoral proposal for a Doctor of Business Administration at Walden University. I found your article on data collection in descriptive phenomenological human scientific research through the interview process very helpful. I will be interviewing 20 participants and want to follow your suggestions for the pre-interview phase. I developed a mind map from what you described on page 27 and created a figure to illustrate the process. The article will be properly cited in accordance with APA 6th edition as follows:

Figure 6. The process for preparing for the interview. Adapted from "The interview: Data collection in descriptive phenomenological scientific research," by M. Englander 2012, Journal of Phenomenological Psychology, 43, p. 27. Copyright 2012 by Brill Academic human Publishers. Printed with permission (See Appendix F).

Thank you very much for your consideration and valuable time.

Thomas E. Drabczyk
DBA Candidate, Walden University
██████████

Appendix G: Permission to Adapt Data Analysis Process from Journal Article

From: **Thomas Drabczyk** [redacted]
Subject: Re: Permission to Adapt Data Analysis Process from Journal Article
Date: December 5, 2013 at 12:28 PM
To: [redacted]

On Dec 5, 2013, at 11:29 AM [redacted] wrote:

Dear Thomas,

Thank you for your email. I was excited to receive it.

Thank you for your kind words. I am glad you find some of my articles useful.

Yes, you have my permission to adapt a data analysis framework developed from our 2012 journal article titled "An Exemplar for Teaching and Learning Qualitative Research."

Best wishes for your dissertation.

Warmest regards,

Tony

-----Original Message-----
From: Thomas Drabczyk [redacted]
To: tonyonwuegbuzie [redacted]
Sent: Thu, Dec 5, 2013 8:32 am
Subject: Permission to Adapt Data Analysis Process from Journal Article

Dr. Onwuegbuzie,

Good morning! I am in the process of writing my doctoral proposal for a Doctor of Business Administration at Walden University. First and foremost, I have used several articles co-authored by you and want to thank you for your significant contribution to scholarly research. I found your works to be referenced in numerous dissertation and scholarly works. Consequently, I would like permission to adapt a data analysis framework developed from your 2012 journal article titled "An Exemplar for Teaching and Learning Qualitative Research." The framework will be illustrated in one of the figures in my dissertation. The article will be properly cited in accordance with APA 6th edition as follows (see attached figure):

The work is cited in the references section as follows:
Onwuegbuzie, A. J., Leech, N. L., Slate, J. R., Stark, M., Sharma, B., Frels, R., Harris, K., & Combs, J. P. (2012). An exemplar for teaching and learning qualitative research. *The Qualitative Report, 17*(1), 16-77. Retrieved from http://www.nova.edu/ssss/QR/QR17-1/onwuegbuzie.pdf
Thank you very much for your consideration and valuable time!
Respectfully,

Thomas E. Drabczyk
DBA Candidate, Walden University
[redacted]

Appendix H: 2014 Digital Accountability and Transparency Act (DATA Act)

Table H1

Summary of the 2014 Digital Accountability and Transparency Act (DATA Act)

	Before DATA Act: No data standards	After DATA Act: Data standards	Result
Data standards, generally	No entity in the government has the authority to impose government wide standards on federal spending.	The Treasury Department and the White House Office of Management and Budget (OMB) will "establish Government-wide financial data standards for any Federal funds made available to or expended by Federal agencies and entities receiving Federal funds." FFATA sec. 4(a)(1).	Federal spending information from different reports and compilations will become interoperable.
Data Standards: Common DataElements	The federal government lacks common data elements to identify agencies, programs, grantees, contractors, awards, and other common concepts.	Treasury and OMB will adopt "common data elements for financial and payment information required to be reported by Federal agencies and entities receiving Federal funds" FFATA sec. 4(a)(2).	Common data elements will unite information from different reports and compilations. For example, a unique identifier for grantees will bring together information on a particular grantee from Treasury's payment requests, the Census

(*table continues*)

	Before DATA Act: No data standards	After DATA Act: Data standards	Result
		These common data elements must include "unique identifiers for Federal awards and entities receiving Federal awards that can be consistently applied Government-wide." FFATA sec. 4(b)(3).	Bureau's Federal Assistance Award Data System, OMB's Single Audit Clearinghouse, and agencies' separate grant-writing systems--even though all of those systems are separately maintained.
Data Standards: Common Data Format	Agencies report their financial account balances to Treasury, submit payment requests to Treasury, disclose budget actions to OMB, summarize grants to the Census Bureau, and report contracts to the General Services Administration. Meanwhile, grantees and contractors report their use of federal funds to the agency that awarded each grant / contract, and also to various databases maintained by the GSA.	Treasury and OMB will establish government-wide data standards that "incorporate a widely accepted, nonproprietary, searchable, platform-independent computer-readable format," such as XML or XBRL. FFATA sec. 4(a)(2).	A common data format will automate the federal government's many separate spending reports and allow them to be checked for quality and analyzed for waste, fraud, and abuse--without changing the substance of the reporting requirements or replacing existing data systems.

	Before DATA Act: No data standards	After DATA Act: Data standards	Result
	All of these separate reporting streams use different, and incompatible, data formats.		
Awards	Summaries of federal grants and contracts are published on USASpending.gov.	Same	Same
Appropriations	The federal government does not publish any details on Congressional appropriations, aside from legislative text.	Treasury must publish a breakdown of each appropriation on USASpending.gov. FFATA sec. 3(b)(1).	Appropriations data will be publicly available on USASpending.gov in a machine-readable format.
Accounts	The federal government does not publish any official list of Treasury accounts. Because appropriations are sometimes divided into separate accounts, and some accounts receive funds from multiple appropriations, there is no way to trace the flow of funds between appropriations and Treasury accounts.	Treasury must publish a breakdown of each account, showing the amounts received, obligated, and spent, further broken down by program activity and by object class. FFATA sec. 3(b)(2)-(3).	The flow of federal funds from appropriation to account to expenditure will be publicly available on USASpending.gov in a machine-readable format.

(*table continues*)

	Before DATA Act: No data standards	After DATA Act: Data standards	Result
Payments	Treasury processes most federal payments. But neither Treasury nor any other entity publishes government-wide checkbook-level data identifying each payment.	The DATA Act does not directly require Treasury to publish checkbook-level payment data. But Treasury has announced in Congressional testimony that it intends to do so.	If Treasury keeps its promise to Congress and publishes checkbook-level payment data, and applies the government-wide common data elements to such data, the flow of federal payments, searchable by agency, program, appropriation, account, grant/contract, and grantee/contractor, will be publicly available in a machine-readable format.

Note. This table provides a summary of possible impacts of the DATA Act on reporting requirements for federal agencies and recipients. Adapted from Data Transparency Coalition (2014) website. Reprinted with permission (see Appendix E).

Appendix I: Descriptive Study Code Book

Table I1

Descriptive Study Code Book

Code	Description	Total Count
ar_audit ready	Participant describes or references audit readiness of the grant recipient	94
bp_best practices	Participant describes business processes in terms of best practices for complying with the rules for receiving federal funds	23
comp_compliance reference	Participant describes the strategies for complying with the Office of Management and Budget rules for federal awards	59
cp_capacity	Participant describes the resources problems or needs of recipient organizations	114
fr_financial reporting	Participant describes the processes & procedures for financial reporting in recipient organizations	61
icw_internal control weakinesses	Participant describes the internal control weaknesses of recipient organizations	47
icw_internal control strengths	Participant describes the internal control strengths that facilitate compliance with the rules	75
kno_knowledge	Participant describes the lack of knowledge or the importance of knowledge in grants compliance for recipients	60

(*table continues*)

Code	Description	Total Count
ldp_leadership	Participant describes the leadership's role in the organization in complying with the rules	44
st_systems thinking	Participant describes internal control improvements in terms of systems thinking or theory. Included are holistic references	106
t&e_time and effort	Participant describes time the internal controls pertaining to time and effort logs	42
tls_tools	Participant describes grant management software or Information Technology tools available to help recipients comply with the compliance rules	21
trn_training	Participant describes the need for training or the lack of training at any level	153
wpp_written policies & procedures	Participant describes the need for written policies and procedures	77