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Determining the Degree of Collaboration Readiness for Regional Transportation Systems: The Formulation of a Model

by

Carol Farver

Dissertation

Submitted to the College of Technology

Eastern Michigan University

in partial fulfillment of the requirements for the degree of

DOCTORATE OF TECHNOLOGY

Area of Concentration: Technology and Society

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April 2015

Ypsilanti, Michigan

Dedication

I dedicate this work to the future, especially my grandchildren; Calvin N. Brooks II, Darnell B. Farver, Travaris A. Hicks II, and MaKayleigh S. Hicks. Much of what I do and have done is for their future. I inspire them and they inspire me. I also dedicate this to my daughters - Michelle R. Hicks and Kalita R. Farver, for whom I have put in much work to ensure they are the best that they can be. May God bless them each and everyone in their future endeavors, and may they also leave knowledge behind in their paths through life. And finally, I dedicate this work to my mother, Eliza Reed, whose thirst for knowledge was passed on to me.

Acknowledgments

First, I'd like to thank God for any and everything I have accomplished in my life. Without His strength, I could do nothing. I would also like to express my sincere appreciation and thanks to my Committee Members; Carmine Palombo (for volunteering his time and expertise), Dr. Phil Schmitz (for his policy and history background as well as his attention to detail), Dr. Deb deLaski-Smith (for her expertise in procedure), Dr. Denise Pilato (for her guidance, background in qualitative studies and Italy), and Dr. John C. Dugger, Chair of my Ph.D. Research Committee (who guided me through the research process step by step.) Their critiques and comments challenged me to dig deeper and go a little further with my thought process. My completion of this project could not have been accomplished without your help and guidance.

I thank my Delphi panel who provided the knowledge, field experience, and expert opinions necessary to critique the model. I thank the King Chavez-Parks Program for the support provided during the Doctoral program and Dr. Alphonso Bellamy who initiated me into the Technology program. Finally, I would like to thank my pastor, Reverend Jesse Cranford III, who not only guided me spiritually, but also had faith that my research and its approval were "already done in the spirit."

Thank you, everyone, (to include each professor and each class) for helping me to make a meaningful contribution in the field of technology.

Abstract

The purpose of this study was to identify factors, both governmental and universal, that indicate the degree of readiness and/or potential for success of a government collaborative project in the field of regional rapid mass transportation. The study is important because collaboration has been recognized as a tool that can help address such challenges as demonstrating the responsible use of limited resources, anticipating converging technologies, and reacting to rapidly changing technologies. There was very limited availability of tools to assist in ensuring successful collaborations. Although tools have been developed that gauge the degree of collaborative readiness of a project, such tools do not address the specific needs of a regional transportation project.

A Modified Delphi approach was used to address the research questions, and included a panel of experts with extensive experience in the field of the research phenomenon. The research questions addressed the identification of the factors that impact successful collaborations for governmental entities and whether or not these factors could be incorporated into a model that when used would increase the likelihood of success of a regional mass transportation project.

This research yielded a list of factors that enhance the chances of success of such projects and proposes a model designed to guide the leaders of potential regional transportation projects.

The suggestions for those planning a regional transportation project include: (1) when creating regional transit authorities, consider the factors identified in this study, (2) use the factors to track the progress of the collaborative project during the preliminary work phase, and (3) institute a policy for the creation of a regional advisory board consisting of local

representation, and (4) use the factors identified by this study to guide the policy development phase as supportive of a Regional Transit Authority.

Future researchers using a Delphi approach should consider working with a membership-oriented organization specific to their research study rather than people with specific job titles.

Identifier/Key words: infrastructure, government, collaboration, region, mass transportation, transportation, technology, Regional Transit Authorities, RTA, Delphi, and Modified Delphi.

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Chapter One: Introduction

Working together is the key to future success in America for both government and non-government entities. The intense amount of information (which is expected to continue to increase), limited resources, and the growing complexity of technology necessitates that we begin to work more in a collaborative manner. Collaboration offers opportunities to expand one's knowledge base, experience, expertise, and resources and forms the basis for an existing business model and a strategic tool that requires fine-tuning for future successful utilization.

The uniqueness and complexity of collaborations coupled with the unpredictability of success make collaborations a challenge. Add to this the cost of such a venture and one can understand a decision to avoid its use. In addition to the aforementioned challenges, government entities have an additional issue. Collaborations involving government entities are not binding or legally enforceable.

Several authors (Thomson, 2009; Scherngell, 2009; Ivan, 2009) have indicated that collaborating is a process that is essential for future success. New technologies that promote working in a collaborative manner and the building and critiquing of computer-based systems and tools that support collaboration are on the rise. However, additional research is required to help understand, analyze, and make a collaborative venture manageable (Thompson, 2009).

This study seeks to increase the probability of collaborative success by helping to identify problems and conditions in the pre-analysis phase of a project that may lead to success through the use of a model or tool. This project is specific to regional mass transportation.

Historical Context

Globally, the future of collaboration is on the verge of exponential growth (Ivan, 2009). Collaborations are "collective works of two or more entities undertaking a shared goal for careful

direction, sensitivity, and adaptation to the environment" (Ivan, 2009, p. 5). While collaborating has become an important tactic for industries to compete in today's market, there are risks, one of which is in becoming dependent on a partner (Singh, 1996). Dependence on a partner can put the organization in a precarious situation. Cooperative agreements bring both benefits and difficulties and are noted as being costly to establish (Singh, 1996).

Thomson (2009) noted that few tractable models exist in the field of collaboration research. The absence of a systemic approach to collaboration arrangements makes evaluation difficult (Thomson, 2009). Focusing on how collaborations are arranged was one of Thomson's recommendations for future research. There is a need for a study that adds structure to formative processes for collaborative ventures.

Collaborations are also becoming vital for public management (Thomson, 2006). There are many reasons for both businesses and governments to collaborate. A few of the reasons for more and successful collaborations are as follows:

Non-sustainable resources – Resources include renewable and non-renewable energy, capital, and natural items. A country's growth is tied to its natural resource availability (Stiglitz, 1974). As resources are depleted, a country's rate of economic growth tends to decline.

Substantial increase and complexity in information – Monitoring and analysis of new information is critical to today's organizations. However, it has become an enormous task to monitor, filter, and comprehend information pertinent to organizational needs. Increasing complexity and the existence of converging technologies are key reasons for this development (Scherngell, 2009). Entities must learn how to integrate new knowledge into existing products or production processes. It may be difficult or expensive to develop this

knowledge alone or to continually acquire it via the market. Thus, cooperative arrangements are formed with other firms, universities, or research organizations.

Globalization – Globalization has created a competitive environment where one is no longer competing with businesses just within the local community or country but with businesses in all cities, states, and countries.

Capitalizing on technology for economic success – New, emerging technologies and information complexity create an environment where it is difficult for an organization or a government entity to independently and continuously maintain the capacity to serve its mission. The expense and resources required when researching, evaluating, understanding, disseminating, and incorporating new technology and information into existing products and services grow frequently and exponentially. Collaboration provides an opportunity to share resources and spread costs among mutually invested partners. The inability to collaborate could have significant impacts on how one continues to conduct, expand, or sustain business. Collaborating provides more options.

The potential value of collaboration is what makes it worth additional analysis and a concept worth discussion. It is a strategic tool that, when used properly, is very beneficial. There is a variety of research and points of views regarding collaborative projects; however, it is not a well-understood process, nor is it well defined (Imperial, 2010). No true definition of the term exists (Thomson, 2009). Collaborating is a mechanism that supports and facilitates technology deployment. There is a need to develop or identify mechanisms that support collaboration.

Government

Within government agencies, various types of collaborations exist, such as vertical, horizontal, inter-organization network, organization of organizations, devolution, and contracted

outsourcing (Imperial, 2010; Daley, 2010). Unlike in the business community, collaboration between government entities is not binding and cannot be legally enforced (Imperial, 2010). This, in addition to the traditional barriers experienced in a private sector collaborative venture, creates an additional set of issues that require new tools for collaborative projects involving government entities. Tools and analyses specific to government collaborations are needed. Any analysis should include assessing each potential agency's readiness for the collaborative venture. This step could be labeled a "pre-assessment," and it will likely save time, money, and resources in both the decision-making process and the endeavor itself.

While it is understood that a successful collaboration has tremendous benefits, it is not often successfully implemented. Each collaboration is unique, and it is this uniqueness that impacts the ability of the project to be effective (Peloza, 2009). The uniqueness and complexity make collaborative success unpredictable. The unpredictability of success and the costs can prohibit a collaborative effort.

Research that contributes to successful collaborations is vital as our society and world face increasingly more complex challenges. Collaborative research would greatly benefit managers (Peloza, 2009). In order to manage collaboration, one must understand it (Peloza, 2009). The identification of factors that contribute to a successful collaborative effort in a particular context would be helpful to similar entities as they consider collaborative efforts to address common goals. These factors, when formed into a model, could help in identifying key strengths and barriers, which can be used to help increase the likelihood of a successful collaborative endeavor.

Inter-agency collaboration has been noted as being " …conceptually elusive and difficult to achieve" (Hudson et al., 1999, p. 236). There is desire and intent to coordinate resources, but

this desire has met many obstacles including Home Rule policies. In general, Home Rule is a policy that provides local government autonomy from the state for the utilization of local resources within their community (USLEGAL, 2013; Vanlandingham, 1968; Merriam Webster, 2013). This research seeks to enhance local government agencies' ability to collaborate.

Statement of the Problem

Historically, the nature of issues that governmental units confront have been addressed based primarily on Home Rule policies and not through collaboration with their neighboring government units. This is unfortunate, as it has resulted in little experience in the field of governmental collaboration at a time when today's issues are complex and require teamwork. The result is that conditions that support successful collaborative efforts have been suggested but not qualified, nor have measures been developed.

Rationale and Background for the Study

The characteristics of collaboration make it a necessary tool for future success. It ensures that various opinions, views, and ideas of different entities are considered, which helps the organization to consider all information that is important for a particular decision. Flatau (Morgan, 2011, para.12) stated that "It is critical that business, government, and the not-for-profit sector to collaborate to build capacity." Joining forces with strategic entities is good business sense, and industries are recognizing this. The Institute of Electrical and Electronic Engineers, "the world's largest professional association dedicated to advancing technological innovation and excellence, is calling for increased collaboration between physicians and technical experts to expand the use of telemedicine technology" (Increased Collaboration, 2011, para. 1). "Telehealth experts agree that there is a need for increased collaboration among

biomedical engineers, health care providers and government agencies" (Increased Collaboration, 2011, para. 2).

For example, Highmark Inc., a major medical insurance organization, recently teamed up with three other entities to develop a framework to provide physicians with electronic health record functionality and practice management tools needed to meet the federal government's meaningful use requirements (Electronic Medical Records, 2011). Highmark states that the collaboration will enable them to promote best practices and clinical excellence across their network and will ultimately improve the overall quality of the health care services to their membership. The end product is designed to streamline the cost and process for both the medical insurance company and the medical providers, thus allowing for information to flow freely and securely between the participating parties. Working together is the key to their success in merging multiple technologies and delivering them securely to various entities in the medical profession (Electronic Medical Records, 2011).

National success. Collaboration occurs in a multitude of industries, forms, and formats. Although it is used often, should it be more prevalent? If more businesses collaborated, could the U.S. become more globally competitive? If the government's position were one of collaboration, could it help to improve the country's overall competitive rating? Competition is not limited to corporate America. It also includes the government. In order to compete as a nation, governments must ensure that the use of resources is maximized. Waste, redundancy, and costs must be kept to a minimum.

State and national budgets. Considering recent national budget deficit headlines (Combs, 2011; Williams, 2010), collaborations could be a significant contributor, if not the answer, to reducing deficits. To have government provide opportunities to combine knowledge

and abilities; manage interdependencies more effectively; combine similar operations for economies of scale; manage geographically dispersed operations across diverse cultural, legal, and political contexts; and handle crises more effectively is an excellent objective (Fuller, 2011).

Better regional/state/national strategies to reach goals and compete. Strategic alliances could assist governments on all levels to reach more of their objectives and goals as well as to reach them sooner and to ensure their ability to provide future required maintenance. Often communities compete for the same state and federal resources. Combining resources could help governments to produce more with less as well as allow more local governments to enhance operations without significantly increasing local, state, or federal budgets. Strategically combining resources where time, effort, and financial obligations are minimized exhibits fiscal responsibility in a time where such responsibility is rare. Collaborating provides the ability to do so. The question then is whether government entities are positioned to collaborate. What is their individual and collective level of preparedness?

Regional Transportation

Regional transportation is an excellent example of government collaborations. As an example, the Metro Detroit area is in the midst of analyzing the establishment of a collaborative effort for a regional rapid mass transportation system. This is a significant event for Michigan, as Detroit is the only top major metropolitan area in the country without such a system. According to prominent businessmen in the area, the addition of regional rapid transit is one step closer to bringing Metro Detroit into a competitive position with other major metropolitan areas (Helms, 2011). Local leaders expect light rail to enhance the city's economic growth. If history is an indicator, the southeast Michigan area could greatly benefit from assistance in producing a successful collaborative project. In 1976, the federal government offered Michigan $600 million

to build a rail transit system (Smartbus, 2012). The project got as far as producing a downtown Detroit rail system. The lack of regional political support prohibited further progress (Smartbus, 2012). Considering the cost and time of creating a regional rapid transit system, a collaborative readiness model could have significantly enhanced their probability of success.

A collaborative readiness model could help in providing not only direction regarding the essential elements requiring immediate attention for a successful regional transportation project, but also in prioritizing critical items that should be addressed at an early stage. It could rate the items based upon their criticality to identify which are critical to success versus which items would be helpful but not essential to success. This would help in identifying where the bulk of the planning project resources should be spent.

Need for a Collaborative Model between Government Entities

This research proposes the creation of a collaborative readiness model for regional government transportation projects. Such a model may have components similar to those exhibited in Figure 1.

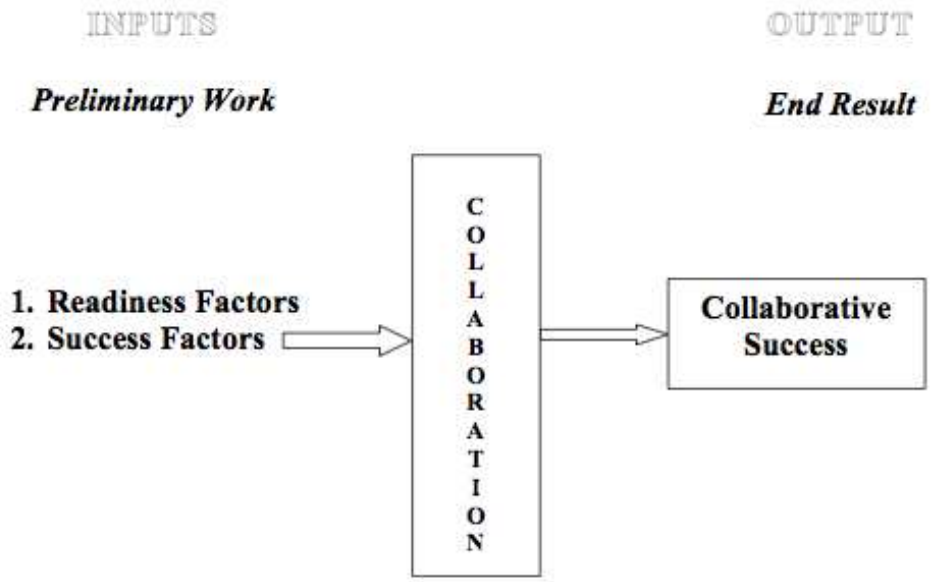

Figure 1. Collaborative Readiness Components

In general, research on collaborations has addressed various industries (Heaton, 2010), segments (Ross, 2009), evaluation of the success or failure of a specific collaboration (Honig, 2006), and an analysis of the collaborative process (Tsai, 2007). The creation of a model that focuses on a collaborative readiness prospective would help improve collaborative efforts. Figure 1 has been formulated based on previous work to provide framework for a concept to include a list of possible elements that can be formulated into a tool for analysis in helping to determine the current state of readiness and ultimately the potential for collaborative success. Such a basic framework or checklist could be used as a standard tool when considering a regional transportation collaborative effort. Generating a rating of the factors will allow each project to identify the critical items and to ensure that the relationship between the factors and the project is understood and addressed.

The United States (business and government) needs to be prepared for collaboration, as a business model, in order to capitalize on its benefits and to ensure continued economic growth. Preparation includes producing a current state analysis of readiness. Research specific to government collaborative readiness is very limited and has focused primarily on outsourcing.

The collaborative readiness elements in Table 1 account for at least some of the key collaborative readiness factors that are important for government sponsored regional transportation projects. These factors will help identify ways to measure the current level of preparedness. Once the current state of preparedness is known, project managers can determine if the project should prevail, if additional preparation is needed, or if the project should be not be undertaken.

Purpose of Study

This research identifies factors that impact a government entity's potential to collaborate on regional transportation projects. Once they were identified, the factors were integrated into a model that can be used to evaluate the degree of readiness that exists for a successful government collaborative project addressing regional transportation. Existing research efforts (Kirshchling, 2010; N. Wang, 2010; Honig, 2006; Nechodom, 1998; X. Wang, 2010; Chandra, 2011; Daly, 2010; Foster, 2002; Imperial, 2010; McGuire, 2010) identified possible factors that contribute toward an increased probability for collaborative success in government as well as factors to gauge readiness for collaboration in contexts other than government. Just as business must assess its position for collaborative readiness and success, so do government entities; thus research for applicability, readiness, and need is warranted. If government collaborates more, the country can build more capacity, such as its transportation infrastructure, in an efficient manner, saving resources, time, and money. This study analyzed collaborative readiness factors' applicability as

a model for future use. If supported, these factors will help government entities determine whether the collaboration venture in question is in a state to successfully institute collaborative policy, identify where it does and does not meet the noted criteria, and determine whether collaborative policy would be beneficial to the area and whether it will be positively received.

Addressing the points identified as preliminary processes and work required for collaboration readiness, the analysis also helps to determine what steps are missing or insufficient and need to be addressed. While collaborations are helpful to business and government, this research focuses on assisting government entities for regional transportation. An example of where this research model could be applied, if successful, is the Metro Detroit area. Readiness preparation of collaborative policy for states and the federal government would be very beneficial. Collaboration warrants a comprehensive, 21st-century analysis to help increase its probability of success and effectiveness. Thomson (2006, p. 29) states that collaboration "…represents an ideal for which we aspire but sometimes fall short of achieving. It is an emerging field of study, and the reality is that it is hard."

Research Questions

The following questions were used to guide this research effort.

1. What are the factors that, when used, contribute toward a successful government-sponsored regional transportation collaborative project?
2. How are these factors viewed and prioritized by individuals who have collaboration experience in a government environment?
3. Can the identified factors, along with the framework depicted in Figure 1, be incorporated into the collaborative readiness model and used for assessing the potential for collaboration between

and among local and regional government entities as it relates to a regional transportation project?

Assumptions

For the purposes of this study, the following assumptions were made.

1) The current state of collaborative readiness for government entities can be accessed.

2) A Delphi panel consisting of people with relevant knowledge and experience will be able to critique and guide the development of the model that can be used to create a measure of collaborative readiness.

Limitations and Delimitations

For the purposes of this study, collaboration regarding regional mass transportation systems provided the context. This study involved experts in regional transportation and other relevant areas as identified in the research for forming and assessing the model. It did not include government entities/agencies with collaborative history outside of the transportation industry.

Rationale for the Method

This study seeks to create a model that can be used to determine the potential for collaborative success. Instead of gauging the model against an existing project or agency, it seeks to create and validate the model as a tool using a panel of experts. As such, this study focuses more on ensuring that the most qualified individuals, those with extensive regional collaborative transportation experience, are included in the panel. The Delphi method is an appropriate tool under these conditions.

The Delphi method includes the use of content experts. According to Okoli, "It is a method for structuring a group communication process" (2004, p. 2). The experts will compose a panel that will generate elements of the model, assemble the elements into a model, and finally

review the proposed model and analyze it for credibility and application based on their experience. In a Delphi study, the panel is encouraged to recommend modifications. The panel's opinions and recommendations are critiqued and shared until consensus is reached (Okoli). This method allows for the building of a working model based on the experience of individuals who have worked on collaborative projects. The use of multiple experts provides a broad foundation and a more enduring model.

Panel participation was confidential, which allowed each panel member to feel free in his or her response. There was no peer pressure or fear of panel influence. The Delphi method allows for expert participation without the need to coordinate schedules and thus a greater opportunity for broader participation. Such a method allows individuals with collaboration experience to comment on the model as an instrument for determining collaborative readiness and thus the potential for project success.

Human Subjects

This research included both surveys and interviews. These items involved the use of human subjects and met the criteria for human subjects review. Human subjects approval from the University Human Subjects Research Committee (UHSRC) was obtained. A UHSRC application form was submitted approximately one month prior to conducting any interviews or distributing any surveys. A copy of the Human Subjects Approval form is attached (See Appendix E.)

Summary

This chapter provides background information and an explanation of the problem addressed. Chapter Two provides a summary of the relevant literature.

Chapter Two: Review of Literature

The purpose of this chapter is to provide an overview of the literature reviewed for this research project and to pinpoint significant and relevant items. It gives the reader more insight into the concepts that contribute to further understanding the problem and purpose of the study.

Michigan. Prior to the 2010 census, Michigan was ranked 8th in population (U.S. Census Bureau – American Fact Finder, 2009) and 8th in energy consumption (Energy Consumption by Source, 2007). At the time, the state was also ranked as the 9th largest metro area in the country (U.S. Census Bureau, 2003), yet it is without regional rapid rail. Rapid light rail has been a topic of discussion in the state for years and continues to be up for consideration.

High-speed rail is expected to help Michigan by (a) bringing more transportation options to its residents at a time when gasoline is expensive and (b) improving its infrastructure and becoming competitive with other major metropolitan areas in the country (Targeted News, 2011). It would also (c) allow its residents to enjoy the same commuter rail benefits as other states and (d) allow Michigan to link with other Midwest states in a regional high-speed rail system. It will (e) allow local communities to enjoy the economic benefits evidenced in areas with such a regional transportation system (US Fed News, 2010). Collaboration between Michigan and Metro Detroit is essential in order to bring a regional rapid transit system to the area.

Factors for collaborative success. Considering how long there have been collaborations, one would think that the art of collaborating would have evolved to a very high level; however, there are many failures. A classic example of the failure to successfully collaborate is the debt ceiling debates by the United States Congress. The debates were brutal and lasted for several months. Although an amount was agreed upon, no one was happy with the end result (Hirschfeld, 2011; Hasenstab, 2011). As of March 2013, the budget battle continues with

Congress. In addition to the 2012 threat of falling off the "fiscal cliff," there is also the sequestration of 2013 that led to deep, across-the-board cuts for the nation. Both of these situations are the result of the lack of agreement or collaboration in Congress on the national budget (National Women's Law Center, 2013).

Wang (2010) agrees that collaboration is not an easy concept and that implementation of such a process does not guarantee its success. If success cannot be guaranteed, why go through the expense, time, and effort? Perhaps this is the reason it is often talked about but not as often implemented. Wang conducted a case study on collaboration and the concept of Quality Use of Medicines with the Australian pharmaceutical industry employees. He noted that acceptance is a key element in successful collaborations. His study revealed that common reasons for acceptance are

1. Identification with the project/program or its success
2. Altruism: unselfishness and/or devotion to the welfare of others (Merriam Webster, 2011)
3. Financial benefits of cooperation.

This implies that if individuals who are asked to partake of or are assigned to work on a collaborative project cannot identify with it, don't believe in its purpose, are not willing to give equal or more than what is received, or do not see how they will benefit from the collaboration, they will be less likely to accept or be open to the project. This could arguably be the situation with the current United States Congress. Wang also identifies five noticeable factors that are indicative of resistance.

1. Division within the company
2. Ambivalence, uncertainty, or fluctuating commitment
3. Mistrust of collaborating partners

4. Where government is involved, as one of the entities, it could be seen as a competitor versus a collaborator
5. Lack of ownership.

The Sigma Theta Tau International (STTI) organization conducted research that supports Wang's theory for common reasons for acceptance (Kirschling, 2010). STTI is a global organization that focuses on the field of nursing and has a very diverse membership that includes deans, nursing faculty, Chief Nursing Officers (CNO), and practicing clinical nurses. The study was performed in response to the organization's goal of bridging the gap between nursing practice and academe and to assure a qualified nursing workforce for the future. It also sought to position nurses to address emerging healthcare needs. From this effort came the STTI's Practice-Academe Innovative Collaboration Award, which recognized and aimed to promote innovative and successful collaborations. The intent of the study was to review practice-academe collaborations and to diagnose their obstacles and benefits. The goal was to encourage nurse leaders in academe and practice to start their own collaborative initiatives. In this study, the benefits of collaborating were identified as

- Increased visibility and esteem for nursing contributions to health care delivery and research by employers, policy makers, and so on
- Maximized access to shared financial and human resources and expertise
- Benefited the missions of both organizations
- Enhanced opportunity to maintain relevancy in practice that is on the cutting edge
- Improved, more relevant, and cost effective education for students and staff
- Increased generation of research questions; access to research subjects
- Applied research findings in practice

- Strengthened and empowered mutual goal setting
- Enhanced control over the destiny of nursing practice and education (Kirschling, 2010).

The benefits of collaborating for the various parties are obvious. Obtaining the collaboration goals will provide the financial and personal incentive required for individual and organization acceptance. The benefits indicated satisfy two (if not all) of the three reasons for acceptance as identified by Wang (2010).

If collaborative project partners all have the necessary reasons for participation, are there processes and programs in place that can guarantee success or at least put a project on track for a greater probability? The literature review reveals that although success cannot be guaranteed, there are certain factors that can increase its probability:

a) Identifying mutual reasons for participation,

b) Identifying and incorporating features of previously successful collaborative projects,

c) Identifying collaborative partner's strengths and weaknesses,

d) Identifying all barriers and constraints,

e) Performing preliminary steps to identify current best practices,

f) Developing core requirements (to include items such as the collaborative interaction),

g) Developing design principles of the collaboration; and

h) Policy development.

Analysis of Factors for Collaborative Success

Preliminary processes and work. Preliminary work entails identifying, documenting, and agreeing on the eight items identified above. Strengths and weaknesses of partner organizations need to be determined, for example, as they influence the design of the

collaborative. How the organizations function as one unit needs to be configured with respect to how, in each organization, the interaction of the agreement will commence. The assumption is that the project will capitalize on known strengths of the various partners.

The case study conducted by Honig (2006) is a good example of the importance of preliminary work. Her article analyzes the position and experience of Boundary Spanners in the implementation of collaborative policy among the community, community organizations, schools, and district offices. Collaborative education policies were expected to "provide the setting and framework for the central office to shift from traditional top-down, command-and control relationships with schools to supporting schools and their community partners in making key decisions about how to improve student learning" (Honig, 2006, p. 357). Boundary Spanners are a staff of public bureaucracies who work on the frontlines or street-level in positions closest to their agencies' clients (Honig). These individuals were expected to give the community an active voice and to be the link or catalyst for the collaborative project.

The findings of her research (Honig, 2006) showed that more extensive preliminary work could have been performed before creating the collaborative. Some of the items determined as issues, where this preparatory work could have helped, were the following: (1) Frontline central-office administrators did not believe that their job description could capture their day-to-day activities. These frontline administrators required clarity and agreement on the new job function. (2) They were hired to (a) represent the community and (b) bring in better and new ways of doing business, and thus certain types of new or external experience should have been considered key to the position but were not identified or sought. There were no clear guidelines regarding the specific experiences required to do the job. As such, they leaned toward hiring based on traditional practices and did not seek experiences outside of this history, even though a

different set or combination of experiences was required. (3) There were also tradeoffs noted as being necessary to success but not initially recognized: experience (central office versus community) and the location of the position (central office or not). The study revealed that locating the position closer to the community would have been better for implementation purposes and that because of the lack of definition and clarity of the role, the central-office administrators struggled to operate consistently.

Honig (2006) reported that clearer parameters (*clarity and infrastructure**) around what school support entails might have increased productivity. Public statements (*social*) about the importance and more specific nature of the work from executive-level district leadership and the school board might have been important in light of federal and state accountability. The expectation of boundary spanners to support the implementation largely on their own may have been a recipe for failure (*infrastructure*, *clarity, and agreement*). The role of boundary spanner should have been clearly understood (*clarity*) in the process of policy implementation. This study shows that frontline central-office administrators might have fared better as boundary spanners in environments with stronger institutional supports (*infrastructure*), including professional role models and job security. Taking the time to perform basic preliminary work could have created a more successful partnership. In government, pre-assessment is also recommended for a successful collaboration project (Nechodom, 1998). The assessment should help clarify available resources, institutional capacity, and stakeholder concerns and interest.

Identifying reasons for collaborating. Identifying reasons for two or more entities to collaborate should not be taken lightly. The importance of this step is illustrated in the water resource management case performed in the city of Yulin, where water shortage is noted as one

* Italicized information will be referred to in the Barriers and Constraints section. At that time, this will be discussed with an explanation for consideration.

of the biggest challenges of this century. Wang's (2010) research consisted of a case study simulation using the Systems Dynamics (SD) model. A holistic approach to water management was desired, but how to obtain the goal was unknown. To determine what was needed, researchers used current data to simulate three scenarios (business-as usual, capacity acquisition, and price control) and analyzed various interactions of the three.

The model was used to gauge the effects of the various supply and demand management measures. The simulation revealed the fact that a portfolio of demand management instruments and conservative measures was the most sustainable strategy for maintaining the economic and ecological status of the region. The analysis pinpointed the needs of the region and thus the specific reason for collaborating with a clear goal. With government, this is a more complicated step as it includes consideration of the communities being represented and political factors in each of the environments.

Barriers and constraints. In any collaborative effort, there are always barriers and constraints (Chanda, 2011). Chanda performed an in-depth analysis on the potential for collaboration between India and the European Union (EU), with Europe as an export market for India's health services, and the barriers and constraints of such a union from a stakeholder perspective. Some of the inhibitors to the EU/India healthcare collaboration are noted in Table 1. In reviewing the items, they appear to fall into one of the following categories: security, uniformity, legal, social, clarity, agreement, and infrastructure.

Table 1

Barriers and Constraints to Collaboration

India/EU Barriers/Constraints to Collaboration		Proposed Category
1	Data protection regulations	Security
2	Recognition and accreditation	Social
3	Insurance portability restrictions	Legal
4	Cultural, political and social issues	Social
5	Contractual issues	Legal
6	Perception, attitude and resistance	Social
7	Disparity in India's healthcare standards	Uniformity
8	Disparity in India's healthcare training	Uniformity
9	Absence of clear guidelines and procedures in India	Clarity & Agreement
10	India's inadequate infrastructure	Infrastructure

(Chandra, 2011)

Kirschling's (2010) research supported this assessment. According to her investigation, academic nursing and service partnerships have been in existence over the last 50 years. However, there have been many obstacles and barriers. These obstacles have prevented partnerships from moving forward or limited its dissemination. Key challenges identified in her research can be similarly categorized.

- Developing and maintaining an ongoing process for strategic planning (*Infrastructure*, *Clarity, and Agreement*)
- Assuring that the aims of the school of nursing and practice are aligned and foster equitable exchange (*Uniformity*)
- Reaching agreement (*Agreement*)
- Developing an infrastructure to support practice (*Infrastructure*)

- Assuring financial sustainability (*Infrastructure and Security*)
- Finding ways to value the practice contributions of faculty seeking promotion or tenure (*Social*)
- Recognizing the importance of clinical research (S*ocial*)
- Providing faculty with time to engage in their work (C*larity and Agreement*)
- Balancing clinical demands with time for teaching and service responsibilities (*Agreement*)
- Managing resistance from the university and other groups or individuals who view clinical services provided as competitive (*Agreement and Social*)
- Assuring sufficient faculty interest and clinical expertise (*Infrastructure and Social*).

Factors for government collaborative success. Government organizations are unique and have challenges that are different from those faced by the corporate world. Home Rule is one of these government specific challenges. Home Rule was not intended to mean complete local autonomy, and there is no unanimity among authorities concerning its meaning (Vanlandingham, 1968). It extends jurisdiction to purely local matters. According to the Dr. A. Bromage of the Michigan Municipal League (2013), Home Rule gives local communities the flexibility needed in creating the high quality of life that is critical to building a strong economy. Nearly every state has a Home Rule policy. These elements specific to this environment should be included when analyzing government collaborations. Features identified as being unique to government are indicated in Table 2.

Table 2

Barriers and Constraints Specific to Government Collaborations

1. Is the collaboration specific to a salient public issue?
2. What are the local agency's available resources?
3. What are the opportunity costs to the agency?
4. What is the local officials' perception of risk?
5. Counties with high per capita income usually have community groups that can influence collaborations.
6. What is the agency's operational environment?
7. What is the severity of the problem facing the agency?
8. How strong are the managerial and technical capabilities of the manager and the agency?
9. Technical skill is a positive indicator for the propensity to collaborate.
10. How well defined is the organization's program? The more defined, the greater the propensity to collaborate.
11. Public managers in organization with clearly delineated duties are more likely to collaborate.
12. Public managers in organization with nebulous, multiple, or conflicting duties are less likely to collaborate.
13. Strong and similar social norms are positive indicators for the propensity to collaborate.
14. Opportunities with strong political support are positive indicators for the propensity to collaborate.
15. Incentives for individual bureaucrats create a greater propensity for collaboration and project success.
16. Home Rule

(Daly, 2010; Foster, 2002; Imperial, 2010; McGuire, 2010; Nechodom, 1998; USLEGAL, 2013; Vanlandingham, 1968.)

Where business would not seek to collaborate with organizations that are deemed risky, costly, or socially different, governments must take these and other factors into account. They must determine if the collaboration with another government entity provides more benefits than risks, as there are not a significant number of agencies or governments with whom they can collaborate. Consideration of the community, agency specific concerns, and capacity, as well as consideration of cost incurred by the agency, are all factors for governments.

Identify current best practices. Identifying current best practices is required when bringing together a collaborative project (Allender, 2011). This information is then referenced in building and designing the program. In Allender's (2011) analysis of the development of a community-based network for obesity prevention in Australia, he determined that there was little agreement with the evaluation, design, and method used. Additionally, there was no national uniform system for monitoring overweight and obese children. The collaboration was to be the framework for building an international CO-OPS network for the global concern regarding obesity. Some of the goals of the collaborative effort were to identify and analyze lessons learned from various community-based initiatives where obesity reduction was key, to identify elements that made community-based entities successful, and to bring together this research, practice, and policy expertise to promote best practices.

Leadership and power in collaborative projects. Selecting individuals to participate and lead a collaborative project is unique. The criteria needed for an individual leading a partnership is different from that of one leading a single organization (Glatter, 2011). There is little authority in a collaborative project, and it requires a mutual accountability between the parties (Glatter, 2011). There is also an assumption of equality though partners will bring different, complementary types of expertise or location. It should be noted that all parties would not have equal power. Corporate strengths and weaknesses will help to drive and support this distribution of "power."

The concept of power and balance in collaborations was discussed in a case study performed by Paoletti (2011). In his study of power relations between Italy and Libya, he expounded upon hard and soft power. According to Paoletti, the current concept of power was based on a simplified definition of political realism where hard power was concrete, measurable,

and predictable. He noted that soft power also had significant influences. Relations between states were based upon relative gains and losses, making relations between governments a zero-sum game. The author challenged the zero-sum assumption and notes that the cost and benefit analysis of his study revealed variable-sum spillover effects across different issues and exposed some of its limits. He determined how soft power influenced the bargaining dynamics between the two countries.

The article focused on inter-state cooperation in the field of migration through the lens of international relations. Libya was to monitor individuals crossing the border. In this example, the assumption was that Italy had all of the power and money. It was determined, however, that the collaboration shifted some of the power to Libya as they held the key to "policing at a distance" on behalf of Italy. The author's research made a case for more analysis and review for the concept and consideration of soft power.

Design principles. Core requirements are the nucleus from which rules and regulations of the operation of the agreement are derived and include significant items identified during the preliminary work phase. They are the foundation for the design principles and include items such as

- Interaction (Scherngell, 2011; Camolesi, 2006)
- Logistics (Albino, 2007)
- Confidentiality (Kanovich, 2010)
- System readiness specific to collaborative projects (Ivan, 2009; Palaghita, 2009)
- Change management (Apostolou, 2010).

When creating design principles (Ross, 2010), Ostrom warned against a one-size-fits-all approach. What works for one collaboration will not necessarily work for others. A few of the design principles identified by Ostrom can be used as a driver or starting point.

- Clearly defined boundaries
- Proportional equivalence between benefits and costs for all policies
- Monitoring
- Sanctions
- Conflict resolution mechanism
- Recognition of rights (Ross, 2010).

Policy. Policy plays a major role in key decisions regarding an organization's future (Nabukenya, 2008). It is "a proposed course of action of a person, group, or government within a given environment providing obstacles and opportunities which the policy is proposed to utilize and overcome in an effort to reach a goal or realize an objective or a purpose. It's a purposive course of action followed by an actor or set of actors in dealing with a problem or matter of concern" (Nabukenya, 2008, p. 220). Organizational policy establishes responsibilities and accountability, ensures compliance, reduces institutional risk, and provides clarification and guidance.

Policy should include rewards and sanctions as noted by Ostrom (Ross). The expectation is that everyone will function according to the agreement. However, that is not always the case as evidenced by the European Union's (E.U.) euro agreement in respect to the deficit that member countries could obtain. Some countries disregarded the agreement that capped the deficit size (Green, R.A., 2011). This created major issues for the entire E.U. While it is not desirable to think about negative items such as misconduct, punishments, and penalties, this example exhibits

the importance of doing so. Otherwise, one or more of the parties of the agreement could suffer injury without an appropriate method of recourse or compensation.

Interaction between collaborating organizations. Fuller (2011) recognized the uniqueness of interaction in business partnerships and elaborated on it in his definition of collaboration. He defined it as "joint efforts by two organizations (private or public) to create and maintain a partnership that guides their long-term cooperation from an organization perspective. Cooperation is supposed to provide opportunities to combine complementary knowledge and abilities; manage interdependencies more effectively; combine similar operations for economies of scale; manage geographically dispersed operations across diverse cultural, legal and political contexts; and handle crises more effectively" (p. 361). He indicated that interactions of elements to include policy, which lead toward the increased probability of a successful collaboration, need exploration.

In Camolesi's (2006) analysis, he reported that every collaborative environment needs specific policy that addresses interaction and believes that its absence can cause the environment to become chaotic. To govern a collaborative environment, mandatory rules of conduct involving the interaction of the element of five dimensions—actors, activities, objects, time, and space—must exist to apply constraints and guide the collaborative work.

Confidentiality. Kanovich (2010) researched the confidential element of collaborations. He took a scientific view of system and plan policies of collaborative ventures and developed equations to represent the various states or configurations and transitions that are present in individual systems. He defined "critical configurations" as those that violate the confidentiality policy of one of the agents and where identification is needed. The entire collaboration of the multi-state system in his research was based on artificial intelligence and required two levels of

policy that had to be viewed and analyzed: system and plan. The data in the system had to flow according to the policy. The various tests performed determined the strength of how well the systemic configuration complied with the collaboration's confidentiality policies.

Collaborative Policy from a Government Perspective

Policy is a high-level overall plan or course of action that embraces general goals (Webster, 2011). What more appropriate place is there for the establishment of collaborative policy than our government? The United States government, by design, is an alliance. It is a composition of independent states working together as one nation (The Charters of Freedom, 2011). If collaboration is an effective and strategic tool for corporations and non-government entities, should it not also be a strategic tool for government? Part of government's duty is to use resources responsibly. Responsibility for the nation's resources is a huge challenge. If collaboration is the best method for responsible management, it should be used. In respect to resources, the global competitive index (McArthur, 2001) indicated that resource allocation is one of the key components of a country's success. Using them wisely should be a national goal.

As of September 2011, eighty-four congressional bills addressing some type of collaboration, five of which actually have the word incorporated in the bill's name (Library of Congress, 2011), had been written. However, is it time for governmental collaboration to function on a higher, more comprehensive and generic level and not just on an individual case-by-case situation? Should it be a basic driver for how government conducts business?

Current government collaborations. There are successful examples of agreements between states, regions, and cities where government entities work together on projects that mutually benefit their constituents. California has a couple of examples such as the success of the environmental justice collaboration (Peterson, 2006) and the California Department of

Transportation's regional rapid mass transportation system (California DOT). Across the country, Washington, D. C., has experienced similar collaborative success in respect to regional rapid mass transportation. The Washington Metropolitan Area Transit Authority (WMATA) encompasses the District of Columbia, Maryland (Montgomery and Prince George counties), and Virginia (Fairfax County, which includes Alexandria and Arlington) and covers about 106 miles (WMATA Facts, para. 2). It has established joint development guidelines and opportunities between its metropolitan regional areas (Washington Metropolitan Area Transit Authority – Planning and Development, 2011).

Rationale for government collaboration. In continuing with regional rapid mass transit systems as an example of some successful regional and state collaborative policy illustration in the United States, we see that Michigan is a state that does not have such a system. This is unusual considering that prior to the 2010 census; it was 8th in estimated population (U.S. Census Bureau – American Fact Finder, 2008) and 8th in petroleum consumption (Energy Consumption by Source, 2007). It would seem to have met the criteria for such a system. As a country, the United States needs to pool resources and effort. Benjamin De la Pena, Associate Director of the Rockefeller Foundation, noted that "in a globally competitive environment and given the current constraints on national resources, spending on transportation infrastructure should be treated as investments – and our choice of investments must be guided by the right metrics – and clear national goals" (2010). Taking into consideration that 84% of the states in the U. S. reported a budget deficit for 2011 (Combs, 2011; Center on Budget and Policy Priorities, 2011), this situation warrants discussion for more regional collaborations, both state and local. However, they cannot be haphazardly established or administered. So where and how do we begin?

Policies that promote collaboration. Pull policies promote government collaboration by creating an environment that enables collaborative projects to gain a higher reward. The policies are to change actors' behavior based on expected rewards usually through incentives, removing bureaucratic obstacles, and so on (Fuller, 2011). Policy that identifies and promotes the general and generic use of government collaborations, such as pull policies, could help in the country staying more focused and using resources more responsibly. A general pull policy specifically addressing coordination amongst government entities could eliminate the need for specific bills and allow and/or encourage ongoing collaboration and sharing of the countries' resources.

Table 3

Tasks for Successful Collaboration

	Task	Pre-requisite
1.	**Preliminary Processes/Work**	**N/A**
	a. Identify Reasons for Collaborating	
	b. Identify Barriers and Constraints	
	c. Identify partner strengths and weaknesses	
	d. Determine collaboration interaction between partners	
	e. Determine specific technical requirements specific to collaboration	
	f. Leadership and power criteria analysis	
	g. Identify current best practices	
2.	**Core Requirements**	**Policy drives requirements**
3.	**Determined design principles**	**Based on Core Requirements**
	a. Interaction	
	b. Logistics	
	c. Confidentiality	
	d. Technology	
	e. Change Management	
	f. Retirement	
4.	**Policy**	**Preliminary Processes/Work**
5.	**Government Policy**	
	a. Use of evidence based research	
	b. Identifying beliefs of applicable parties	

Table 3 summarizes the collaborative research in Chapter Two (not including factors specific to government). Factors specific to government collaborative projects are indicated in Table 2.

New collaborative centered technologies. Many new technologies are in development, such as Collaboration Engineering (CE), Group Support Systems (GSS; Nabukenya, 2008), and the online Journal of Applied Collaborative Systems to help to improve the process and promote quality characteristics of collaborative research and practice (Ivan, 2009). Group Support Systems (GSS) is an example of collaboration technologies that offer added value in terms of anonymity and parallel communication to assist people working together to achieve a goal.

Collaboration Engineering (CE) is an approach to designing collaborative work practices for high-value recurring tasks and deploying those designs for practitioners to execute on their own without ongoing support from professional facilitators. The phases of the approach are shown in Table 4.

Table 4

Phases of Collaboration Engineering

Generate	Move from having fewer to having more concepts in the pool of concepts shared by the group
Reduce	Move from having many concepts to a focus on fewer concepts that the group deems worthy of further attention
Clarify	Move from having less to having more shared understanding of concepts and of the words and phrases used to express them
Evaluate	Move from less to more understanding of the relative value of the concepts under consideration
Build Consensus	Move from having fewer to having more group members who are willing to commit to a proposal.

(Nabukenya, 2008)

Collaboration Engineering includes items such as *thinklets*. A *thinklet* is defined as "the smallest unit of intellectual capital required to create a single repeatable, predictable pattern of collaboration among people working toward a goal" (Nabukenya, 2008, p. 218). New

technologies and research are helping to understand and ensure successful collaborations, as they are the key to future economic success. The United States, public and private, must be prepared.

Assumptions

A potential obstacle in government collaborative projects is ensuring that research evidence is appropriately used in the policy-making process (Flitcroft, 2011). Policy-making is the management of rival value sets, which often creates an environment of difficulty in getting legitimate evidence-based research admitted into the policy decision and implementation process (Flitcroft, 2011). Successful collaborations require dealing with truth and facts. This could be a major obstacle in any government collaborative endeavor. Flitcroft noted that although evidence is presented, it does not always appear as if it were used. Policy seems to be created within a black box (depicted in Figure 4), and Flitcroft recommended that this process be revealed with explanations accompanying policy outcomes.

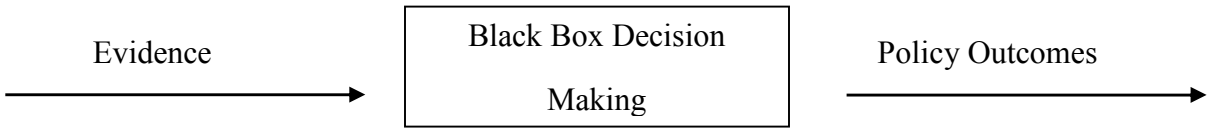

Figure 2. Black Box Decision Making (Flitcroft, 2011)

Another current issue with government policy that could affect collaboration is the extent to which leaders' perceptions guide policy decision (Lahat, 2010). Unlike the corporate environment, where business leadership drives the desire to collaborate, Lahat (2010) noted that policy participants tend to screen out information that does not adhere to their preexisting beliefs, and this prohibits adaptive learning and changing of beliefs. This is an existing problem with policy formulation, and, unfortunately, it could inhibit the collaborative policy process as it relates to government.

Summary

This chapter provides information regarding collaboration from a variety of entities worldwide. It identifies the need for both business and government to embrace collaborative strategies. Strengths and weaknesses of various collaborative projects were analyzed, and factors that should be considered for success were identified. Factors unique to government collaborations were also identified. New collaborative-centered technologies were discussed as additional support for the theory that collaborations are becoming important to future success of both business and government. Chapter Three will address the proposed research method and design.

Chapter Three: Methods

This chapter describes the primary tool that was used in the research project: the Delphi method. The Delphi method involves the use of a panel of individuals with extensive expertise as it relates to the research phenomenon. The objective of using the Delphi method in this study was to combine the collective knowledge and skills of a carefully selected group of experts and bring it to bear on a problem (Jairath, 1994; Fish, 1996; Streveler, 2003).

For the purposes of this study, individuals with experience in regional collaborative transportation projects were selected as panel members. Their extensive background in transportation projects of a collaborative nature helped ensure a valid outcome. The panel was asked to determine

1. if the identified factors are important to regional rapid transit collaborative project success;
2. if the model can be used as is;
3. if the model can be used but requires modification; or
4. if the model is not useful in determining the degree of collaborative readiness of a regional transportation project.

The Delphi method and the process used in this study are further described below.

Flexibility and privacy of the Delphi method. The flexibility and privacy inherent in the Delphi method are two of the major reasons for its selection. It is possible to solicit input from leading experts in a forum that allows for freedom of critique without concern of having to concede to other more notable expert opinions. This method also allows for privacy of all participating panel members (Okoli, 2004). Panel members are free from influence from other

members, and each individual panelist's comment is based solely on the respondent's experience.

The Delphi approach also allows for easy coordination among panel members (Goluchowicz, 2011). While arranging the schedules of a group of experts to meet to discuss the proposed model is next to impossible, the Delphi model allows for an asynchronous communication process without the need to coordinate schedules.

Research Design

The Delphi method combines quantitative and qualitative elements and is a group process with the goal of reaching consensus as one representative unit (Ludwig, 1997). The "ranking type" Delphi (Okoli, 2004) was selected for this research project as it is used to develop group consensus on the importance of issues. In this study, the panel helped identify and rank the importance of factors specific to collaboration success of regional transportation systems. They were then asked to integrate these factors into a comprehensive model that can be used to guide leaders as they consider regional transportation collaborative projects.

Figure 3 outlines how the Delphi method was conducted for this study. Specific details regarding the process flow are discussed later in the chapter.

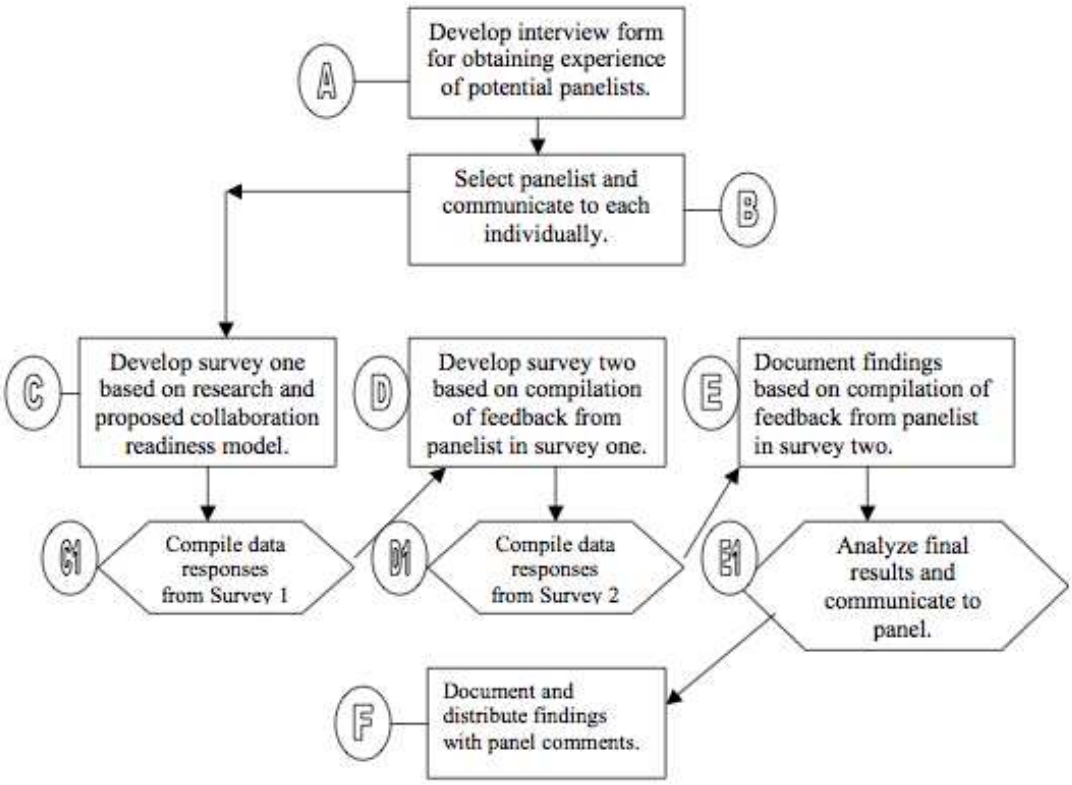

Figure 3. Delphi Methodology Project Flow. Procedure based on elements of Goluchowicz, 2011; Ludwig, 1997; & Okoli, 2004.

Overview. For this study, Delphi experts are defined as individuals who currently work or have worked in key leadership or political positions such as council member or member of a regional government transportation collaborative project or metropolitan transportation system. The panel was responsible for helping to develop a collaborative readiness model based on some of the elements discussed in Chapter One. There were two rounds of input provided by the panel. Okoli's (2011) research supports the theory that potential benefits beyond the second round are not universally determined to be beneficial, with the best judgment exhibited between the first and second rounds. Two rounds or three iterations (Blind, 2008) are recommended. At this point, either the panel reaches a consensus as to elements of the model that can be used for measuring collaborative readiness of projects, or a report on the barriers to consensus will be compiled.

Selection of Subjects

Selection of panel participants is critical to the project success as the quality of Delphi results is only as strong as the quality of the experts selected (Goluchowicz, 2011). Panel selection is also important because "the poor selection of experts can cause instability of responses among consecutive Delphi rounds" (Goluchowicz, 2011). To assist researchers in the panel selection process, Okoli (2004) recommends using a Knowledge Resource Nomination Worksheet (KRNW) in determining qualified individuals. The KRNW helps to categorize the criteria for determining what indicators constitute an expert prior to beginning the actual selection process. There are a total of five steps in this process. A sample KRNW process is illustrated in Figure 4.

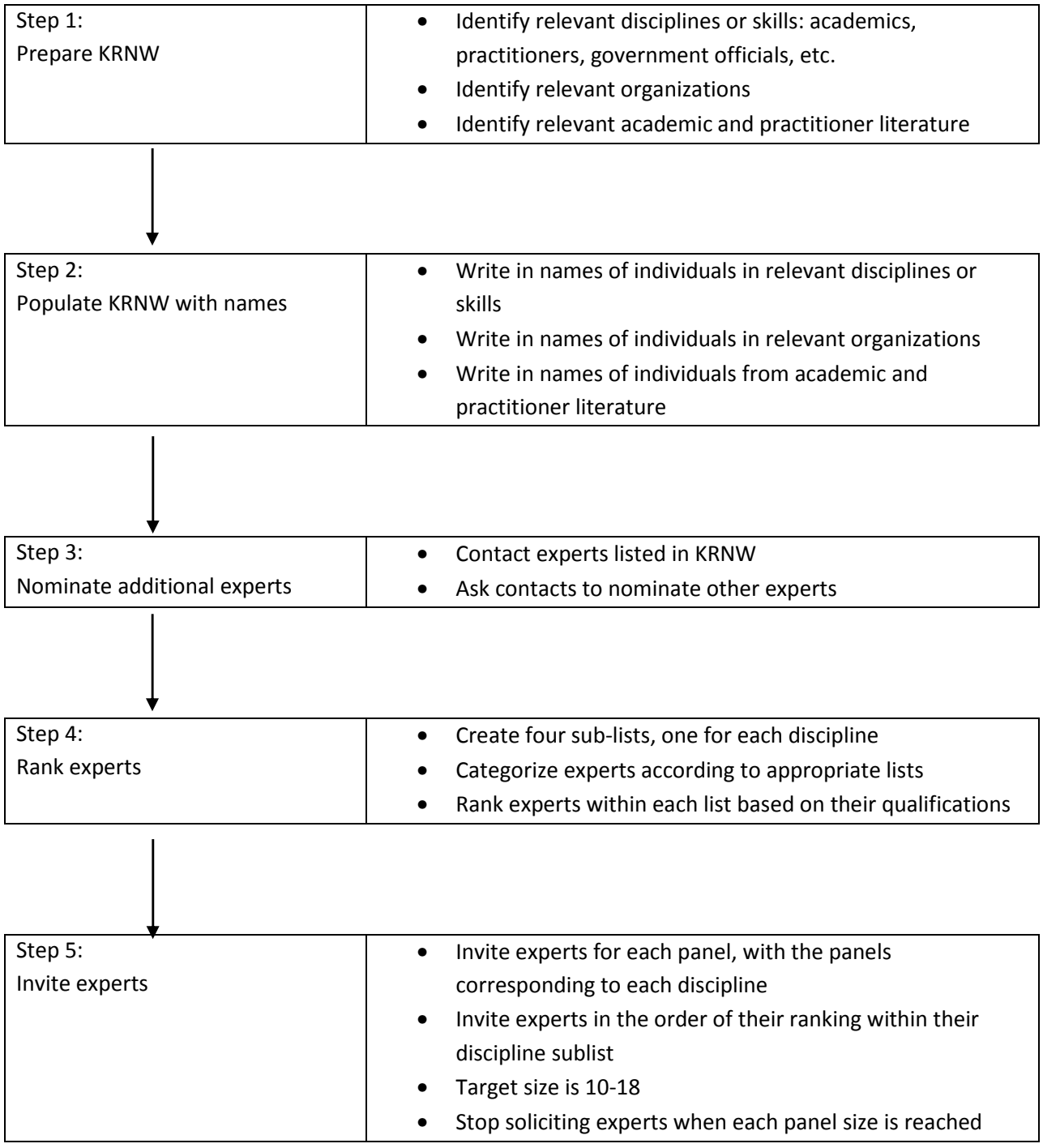

Figure 4. KRNW Selection Example (Okoli & Pawlowski, 2004, p. 21)

Since the context of this research is local and regional collaborative transportation projects, individuals with experience in regional transportation projects involving multiple municipalities and/or counties were solicited to participate in this study. Job titles included

individuals with positions from the following list, as their job responsibilities pertain to either regional or metro transit (agency/authority) projects or politicians and community leaders except where noted:

- Board Member
- Board of Directors
- Manager/General Manager
- Chairman
- Director/Executive Director
- President/Vice President
- Commissioner
- Council Member
- Secretary of Transportation or representative (U.S. Department of Transportation).

Participation in this project involved only panelists within the United States. Limiting the panel members to the U.S. ensured that one common set of laws (federal legislation) was considered in the process of collaboration in regional transportation projects. The existence of one set of common laws (federal only) allows for a greater potential of transferability of the research results to all states in the U.S.

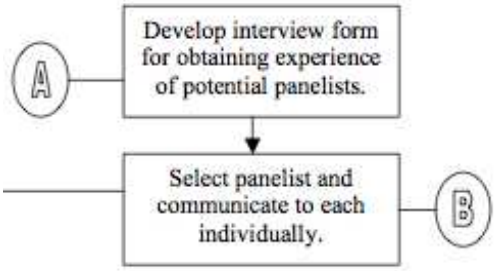

Figure 5. Preparation Phase

To ensure that qualified panelists were selected, a panel member information form representing the regional transportation field was scheduled for development following the five steps indicated in the KRNW (refer to Figure 4). However, securing panel members became such a difficult task that the KRNW form was eliminated as the goal quickly became ensuring that a panel representing the industry was realized.

For this project, the projected panel size was between 16 and 20 members. Although 10 to 12 is considered adequate, the target size was 16. This size was determined because the field of available experts is relatively small, and the number of individuals who were willing to participate could not be determined; thus a wide range of individuals (relative to the industry) were solicited. The size of the industry (small), enthusiasm, willingness to participate, ability to communicate directly, availability to commit, and other criteria all impacted the selection of panel members. All of these were unknown factors and affected the final panel size. The goal was to have a few extra panel members to ensure that, should participants drop out or decide not to respond to any part of the research, there was still opportunity to finish with an appropriately sized panel. However, the difficulty in recruiting members became an obstacle and could have put the project in jeopardy.

A list of potential panel members was created and included individuals currently employed in local or regional transportation collaborative occupations. This list was created by identifying major metropolitan areas in the United States as determined by the U.S. Census Bureau **(**Appendix A). For each of the identified metro areas, the state's Department of Transportation was researched, as were the counties and/or cities engaged in regional collaborative ventures. Each of the selected regional collaborative authorities was critiqued for a committee or a board of directors from which potential panel members could be drawn. Within

each regional agency, a random selection of these members was made, carefully ensuring that multiple areas were represented. Each member solicited was asked to recommend another resource for consideration. They were requested to keep panel participation confidential until the project had been completed. Because the federal government oversees or contributes federal dollars to many of these projects, the United States Department of Transportation was also referenced for potential panel participation. A copy of the resume of each of the individuals contacted was requested for critique for panel participation.

The final determination of individuals eligible for panel participation depended on the responses received. Until that time, it was unknown what experience was available in the field and, out of that group, who would be able to participate in the study. The final selection of the panel was based on participants who volunteered and had the required experience in the industry. Participating panel members were asked to sign a participation/confidentiality agreement. This agreement contained the panel and researcher expectations/commitments. The proposed agreement is included and labeled as Appendix C for reference.

Designing of Delphi Instrument

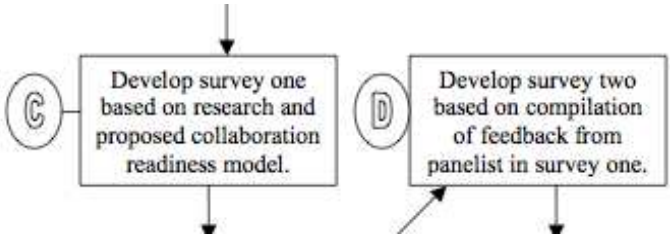

Figure 6. Development of Survey Instruments

Development of survey. There were two surveys administered to the panel. The first survey was compiled based on information obtained during the literature review. It included the list of factors identified for both universal and government specific factors. A copy of the survey forms is noted in Table 5. A copy of the actual surveys can be found in Appendix D (Survey

One) and E (Survey Two). Survey Two is a compilation of the data collected in Survey One and represents a collective analysis of all panel input.

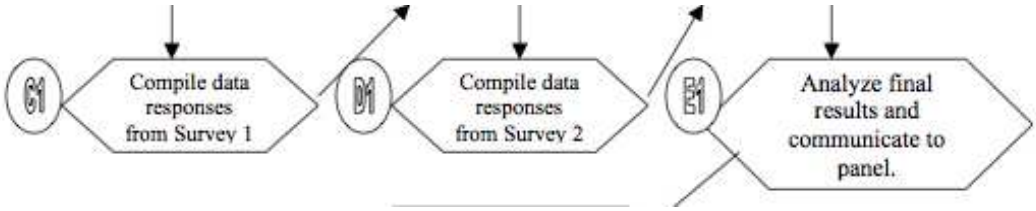

Figure 7. Data Compilation/Analysis Phases

Data collection. Data collection was conducted via survey through the Internet. Because the panel experts resided in various states across the country, the Internet was selected as the means for delivering the survey instrument. This allowed for panelists to receive the survey in a timely manner and approximately at the same time. It also allowed for efficient turnaround time for responses. The responses are confidential. Only the researcher is able to identify individual panel member responses. There were two iterations of the survey.

Panelists were expected to answer each survey question freely and honestly. They were responsible for ranking the proposed success factors in order of perceived importance, reviewing and commenting on the proposed model, rating each factor for its individual merit, and rating and providing input regarding the overall model. Last, panelists were asked to provide alternatives to the model and any proposed factors, as they deemed appropriate. The first survey was based on the research results; the second (final) survey was a compilation of the feedback received from the panelists. Panelists had an opportunity to comment on all compiled responses.

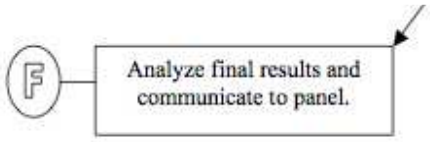

Figure 8. Final Analysis Phase

Data analysis. Data were compiled both quantitatively and qualitatively. Quantitatively, panelists were asked to provide ratings on each factor for both rounds. The rating scale was based on the Likert-type scale and range as indicated.

- Critical to government collaborative success and absenteeism would create government issues or project failure. (4)
- Essential to collaborative success and absenteeism could create issues or project failure. (3)
- Essential to success but absenteeism will not cause project to fail. (2)
- Good to have but not essential to success. (1)
- Not essential for project success. (0)

Each rating on the survey was quantitatively compiled and presented to the panel for review and critique. Factors presented by the panel members in the first round were presented to the panel as a group in the second round, with both their recommended ratings and a synopsis of the comments as provided by the individual panelists. All comments received were qualitatively compiled and summarized for panel presentation and review. Comments that either dissented or represented strong opinions were presented with the summary.

Conflict: In cases where there was conflict in panel opinion, the following was presented as a method of capturing panel opinions for that factor/item:

- Summary rating
- Total in agreement and total in disagreement on each factor presented
- Summary of comments from panelists
- Request for rerate based on information presented accompanied by concrete examples (based on panel experience) to support opinion/rating presented.

The following paragraphs explain how the iterations were conducted and what they encompassed. There were three iterations in total.

Iteration One: Iteration One was compiled from the research data. Research dictates that certain factors are indicative of collaboration success for any collaborative venture, and certain factors are indicative of collaboration success for government collaborative ventures. These factors are incorporated in the collaborative readiness success framework shown in Figure 1. The recommended or identified factors are incorporated into the proposed model and illustrated in Figure 9. Figure 9 represents the collaborative readiness framework concept shown in Figure 1, updated with the tasks for successful collaboration from Table 3 and barriers and constraints specific to government collaborations in Table 2.

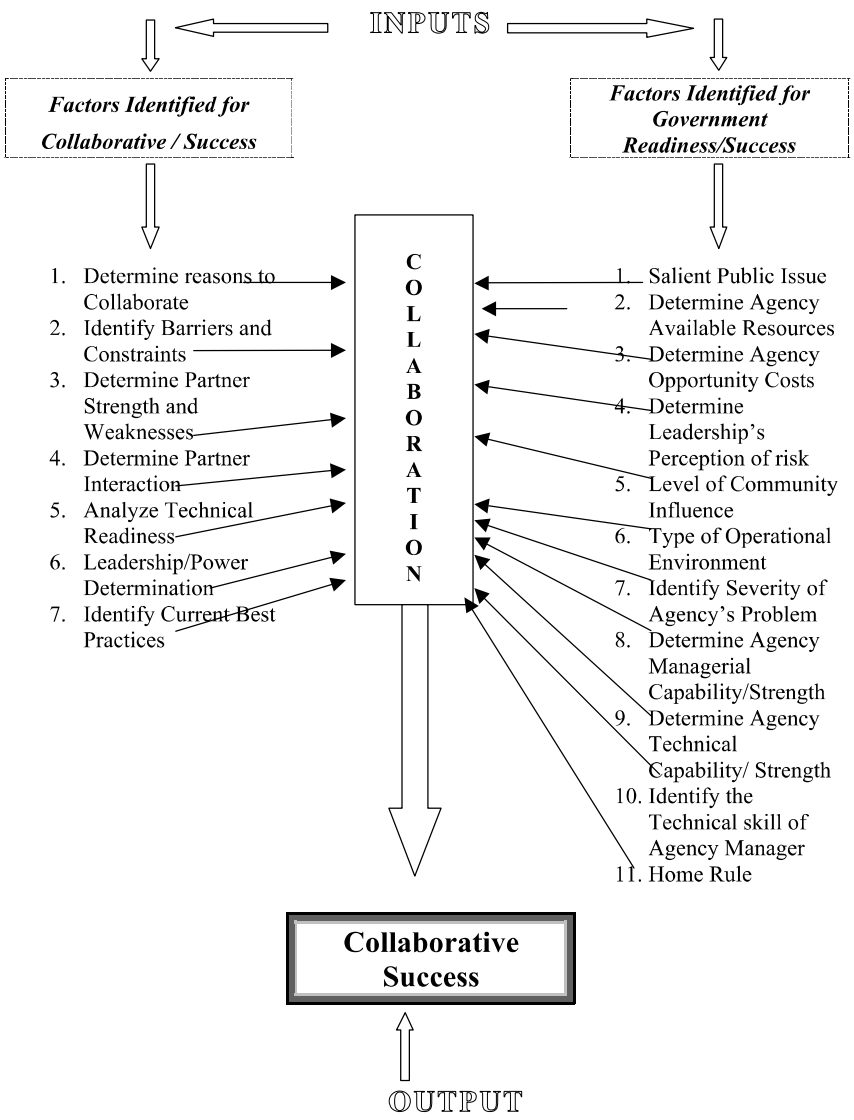

Figure 9. Collaboration Success Model with the Factors

Panelists were asked to comment on the model as an entity (Section A) and to analyze and rate or rank each of individual factors for applicability and criticality (Sections B and C). They were asked to weigh the factors considered universal collaboration success factors (Section B) as a unit and to weigh the factors considered as specific to government collaboration success (Section C) as a unit. They were also asked to consider any additional factors for collaborative

success that were not listed but deemed essential based on their experience (Section D). In each section, panelists were asked to provide ratings and rationale for each of their ratings.

Table 5

Survey Plan for First Survey

Applicability of the Model		Section A
Universal collaboration factors	As an entity	Section B
	Each individual factor	Section B
	Rating of individual factors as a unit with rating rational.	Section B
	Rating of individual factors among all universal collaboration factors with rating rational.	Section B
	Rating of individual factors among both universal and government specific collaboration factors with rating rational.	Section B
Government specific factors	As an entity	Section C
	Rate each individual factor with rating rational.	Section C
	Rating of individual factors among all government specific collaboration factors with rating rational.	Section C
	Rating of individual factors among both universal and government specific collaboration factors with rating rational.	Section C
Recommendation for factors not listed but considered critical to success.	With rational/purpose.	Section D

Iteration Two: The second iteration of the survey was similar to the first with the exception that panelists did not rate the model and factors as originally presented or modified. They rated the compilation of information based on a summary (quantitative and qualitative) of their collective opinions, ratings, and comments. At this point, they were asked to present solid examples of their new ratings and comment where they disagreed or strongly supported. The researcher requested the examples be based on personal experience and logically presented in a summarized form of no more than one or two paragraphs.

Iteration Three: Iteration Three was the final compilation of data. They were compiled similar to Iteration Two. The difference is that the ratings and comments were final and there was no opportunity for comments or concerns to be included in the analysis. Ratings, comments, or concerns received after Iteration Two was distributed and kept on record and potentially included in the final research findings documentation.

Human Subjects

In order to ensure that the surveys were conducted with the utmost integrity, and because research plans included interaction with human subjects, the Eastern Michigan University Human Subjects Review Committee (UHSRC) guidelines were followed when developing the interview form and survey. Once the final documents were produced, a Request for Approval of Research Involving Human Subjects form was submitted along with the dissertation proposal to the University Human Subjects Review Committee (UHSRC). A copy of the Request for Approval of Research Involving Human Subjects form is included in the Addendum section as Appendix F.

Summary

This chapter identifies the research method of choice and describes the method and applicable process as it pertains to the research. It describes the subjects' selection process, the research instruments, and treatment of data for this particular project**.**

Chapter Four: Results

This chapter provides the results of the analysis of the data collected for this research project. All data received were analyzed for patterns, clues, and generalizations as a combined source of information representing the regional transportation industry from a collaborative perspective. These data were collected from a panel of subject matter experts (SME) in the field of study.

Data Collection

Once the plan was created, the first challenge was to procure subject matter experts. Since the regional transportation industry is primarily government-run and since all government agencies today are severely impacted by budget constraints and resource reductions, the existing administrators have been placed in a situation where there are not enough resources to get the job done (Impact of the Economic Downturn; 2011; Challenge on State and Local Transit Systems, 2009). As a result, securing subject matter experts for this research project was a difficult and protracted challenge.

Subject matter experts (SMEs) were identified based on the agency of employment. More specifically, subject matter experts were identified by first referencing regional or rapid transit organizations within the United States. Utilizing the U.S. Census bureau data to identify the top metro areas across the country and then using the Internet to identify corresponding transportation agencies and selecting experts within the organization is how the SMEs were determined. Such organizations include Metropolitan Atlanta Rapid Transit Authority (MARTA), Dallas Area Rapid Transit (DART), Bay Area Rapid Transit (BART), Greater Cleveland Regional Authority (GCRTA), Interurban Transit Partnership (THE RAPID),

Washington Metropolitan Area Transit Authority (WMATA), District Department of Transportation (DDOT), and so on.

Once the organizations were identified, experts within these agencies were selected and contacted via email. A follow-up telephone call was next. Because these individuals were managers, directors, or members of the board of directors, direct contact (email or phone) was not always possible. In many cases, the help of administrative assistants was sought via phone.

Initially, the response rate was very low although multiple phone calls were made and despite multiple emails being sent. Part of the problem was that the SMEs did not seem to keep up with their emails. Many times, I was asked why an email wasn't sent earlier when, in fact, one had been sent two to three weeks prior to the call. Other times, they did not seem to have read their email nor could they locate it. In most cases, it was necessary to reiterate the email content with each telephone call.

For the individuals who did agree to support the project, there was the matter of availability. At times, they would be out of town or out of the country. Some offered to recruit additional subject matter experts. However, in the end, the procurement of additional support was not realized based the following:

1) simply refused to participate
2) agreed to participate but failed to follow through
3) did not keep up with their emails in a timely manner, which caused delays and confusion
4) early agreement but interest waned due to duration of recruitment process
5) had desire, but unable to commit due to work schedule.

The American Public Transportation Association (APTA) was also contacted to help obtain SME support. A research participant recommended this association during the recruitment phase of round one based on the research subject: regional transportation. While the association eagerly offered their support, the end result was that they too were overwhelmed with their own job responsibilities and were unresponsive after initially agreeing to help. Since it took several months to recruit subject matter experts, individuals who agreed to participate earlier in the process became impatient. This, of course, provided an additional challenge of maintaining the interest of those who agreed.

Ultimately, it took three months of phone calls and emails to recruit a total of ten participants. A two-week window was provided to complete the survey. Approximately 60% of the SMEs who agreed to participate did so by the survey due date. After the survey deadline, follow-up phone calls were made to the SMEs who had agreed but had failed to complete the survey. This added an additional two to three weeks to the timeframe of Survey One.

Characteristics of the Subject Matter Experts

Eighty percent of the panel identified themselves as from a regional authority and 20% as from a multiple transit agency for service areas. Survey One did not seek to know whether the collaborating agency was a regional transit authority. However, this survey did reveal that some panel members viewed a regional transit authority differently from a regional collaborative agency. Based on this information, Survey Two specifically identified a regional transit authority as a unique structure. Table 6 identifies the education, region, gender, experience, and title of the SMEs who did participate.

Table 6

Characteristics of Participating Subject Matter Experts

Title	Education	Region	Experience	Gender
Manager	BA Economics MBA	Midwest	Served in a leadership capacity for multiple regional transit authorities in various states. 20+ years	Male
Associate Director	M.A. Labor Relations/Management Studies MBA	East	Served in a Leadership capacity in various transit authorities of multiple states 20+ years of experience	Male
Director	Bachelor's Degree	East	20+ years in multiple government positions with a focus to enhance civic participation, improve management and increase investment in public physical infrastructure	Female
Director	Master's of City Planning (MCP)	West	Two Years as Director	Male
Manager	BS- Mechanical Engineer Master of City & Regional Planning, Transportation, Land Use	West	First position as a government employee for regional transportation Less than 5 years	Male

Title	Education	Region	Experience	Gender
CEO	Bachelor's degree in History Bachelor's Degree in Political Science	Midwest	Eleven Years as CEO	Male

Data Results

This Delphi study involved the use of two surveys. For the first, the art of collaboration was examined in an attempt to understand how it works and what recent methodologies were used to ensure a successful collaboration. The results of the literature review, as it pertains to the preparation process, were presented to the panel via Survey One. Survey One sought to understand the level of applicability of the research regarding the field of regional transportation that consists of government entities working together. Survey Two presented an analysis of data from Survey One and sought reactions as to whether this analysis accurately reflected the panel's ideas. In other words, Survey Two ensured that the analysis of the original survey adequately represented the panel's views and sought to better understand the reasons behind these views.

A summary of the results is provided at the end of this chapter. The following chapter presents and discusses the implications, conclusions, and recommendations based on these results.

Survey One. Survey One (Appendix D) was composed of items that were identified during the literature review as factors that were perceived to contribute to a successful collaboration of two or more entities for both government and non-government entities. These indicators were presented to a panel of experts in the field of regional transportation run by government agencies. A total of 10 experts agreed to participate; however, only six accepted the request and actually participated in the survey. It should be noted that for some of the survey question, maximum participation was answered by fewer than six – four or five SMEs.

The project participants had a variety of experiences in government, with the majority of that experience in regional planning to include regional transportation. The majority of the participants were seasoned in government work, with more than 10 years of experience in the field. One participant was new to this role in government and indicated that he/she could not speak as a seasoned expert with many years of experience but could share the knowledge and experience obtained from more current experience.

Although there were not a lot of available candidates to choose from, the participants who did agree to support this project brought a wealth of knowledge and a variety of experience with regional and state systems. Not only could they speak from the experience gained at their current position/agency, but some could also speak based on former positions held in regional authorities of other states.

An analysis of the survey data revealed that 100% of the factors (Table 7) – both universal and government specific – were useful. However, the degree of usefulness varied from "Critical to Project Success" to "Some Usefulness." Less than half of the factors received a majority vote in any particular rating category (i.e., a particular factor may be rated as "No Usefulness" by some panel members but rated "Critical to Project Success" by another). One hundred percent of the factors were rated as either "Some Usefulness," "Useful with Modifications," "Very Useful," or "Critical to Project Success" by the majority of the respondents. Therefore it appears that the factors used were valid for this context.

Table 7 reiterates the factors that were provided to the panel for review. The factors are segmented into two categories: universal and government.

Table 7

List of Factors - Universal and Government

Factor #	Factor Type
Universal	
1	Determine specific *reasons for the entities to collaborate*. How will each organization benefit from the project?
2	Identify all known *barriers and constraints* specific to the collaborative effort. What could block the success of this effort?
3	Determine *partner strengths and weaknesses.* What does each agency bring as a strength and what are the organization weaknesses?
4	Determine *partner organization/agency interaction*. At what points/activity will they collaborate or share data, and what activities will be specific to a particular agency?
5	Analyze the *technical readiness* of each potential partner.
6	Determine how *leadership will be structured* within the collaborative project. Will it be shared or will one agency lead the venture?
7	Identify the *current best practices* associated with item to be addressed by the project. Within the industry, are there identified "best practices"?
Government	
8	Is the collaboration based on a *salient public* issue for each participating agency?
9	Prior to collaboration, determine *available resources* of each agency.
10	Prior to the decision to collaborate, each agency/region/city needs to determine their *opportunity costs* for participating in the project.
11	Each agency/region/city must determine the *perception of risk* in participating in the project.
12	Prior to the decision to collaborate, determine the level of *community influence* for each agency/region/city and how the community reacts to the project.
13	Each agency/city/region must determine their type of *operational environment* and how it work function in a collaborative project.
14	Prior to the decision to collaborate, each agency/city/region must identify the *severity of the problem* for which the project is expected to correct/enhance.

Factor #	Factor Type
15	Prior to the decision to collaborate, each agency/city/region must *identify its managerial capabilities* and strength (weak, strong, etc.) as it relates to the project or project purpose.
16	Prior to the decision to collaborate, each agency/city/region must identify their *technical capabilities* and strength as it relates to the project or project purpose.
17	Prior to the decision to collaborate, each agency/city/region must identify the *technical skill* of the entity in their organization who will manage the effort as the agency representative.
18	How important is *Home Rule* to the collaboration of multiple government agencies? Is it a factor in the decision to collaborate? Will it impact how the agency determines to build the collaboration?

NOTE: For future references to the factors, the main feature of each factor has been italicized. The italicized words will be used to reference the specific factor.

The data analysis revealed factors that were not currently considered as contributing to the success of a regional transit authority's success.

Table 8

Factors Not Helpful to a Regional Transit Authority

FACTOR #	FACTOR TYPE	COMMENT
#U4	Partner Interaction	End up with one organization where sharing of information is part of the process.
#U6	Structure of Leadership	Everyone is equal. Leaders determined by desire to lead and votes.
#U7	Best Practices	There are no best practices. Each entity fashions agency based on what is logical to the region.
#G3	Opportunity Costs	Cost is not a factor.
#G6	Agency Operational Environment	Created and administered based on consensus or majority vote.
#G7	Severity of Problem	Not applicable to an RTA.
#G8	Agency Managerial Capabilities	RTA responsible for self. There is no managerial interactivity.
#G9	Agency technical strengths	RTA responsible for self. There is no managerial interactivity.
#G10	Agency technical skill	RTA responsible for self. There is no managerial interactivity.
#G11	Home Rule	Not relevant.

Responses indicated that, where the collaborative effort was administered via a regional authority, collaborative factors were thought to be the least useful and, where applicable, would require the most modification. It was also indicated within the data comments that none of the universal factors were considered to be "very useful" to a regional authority type of collaboration. However, the actual data (Table 8) shows that 55% of the all the factors had a

rating present of "no usefulness." With 42.8% of universal factors receiving a rating of "no usefulness" and 63.8% of the government factors receiving this rating, it appears that the universal factors are more applicable than the government factors.

The comments along with ratings results suggest that Regional Authorities are perceived as unique collaborative structures. Regional Authority entities are created by popular vote or an executive decision (such as a governor). Under such circumstances, the role of collaboration is quite different.

(Panel Comment: Where there is a Regional Authority it is the result of a majority public vote. An entity either joins the Regional Authority and becomes a member or is a non-participating party.) Once the authority is in place, the collaboration appears to be structured similar to an independent agency with a single purpose, and there is no agreement in respect to a regional collaboration.

Table 9

Survey One: Individual Factor Analysis

Factor	***No Usefulness***	***Somewhat Useful***	***Useful***	***Very Useful***	***Critical to Project***
Universal Factors					
1- Reason to Collaborate			25%		75%
2- Barriers & Constraints			25%	75%	
3-Strengths & Weaknesses			25%	50%	25%
4-Agency Interaction	25%		50%	25%	
5- Technical Readiness		25%		75%	
6-Leadership structure	25%			25%	50%
7-Best Practices	25%		25%	25%	25%
Overall: Universal 50% - Very Useful/ 50% Useful					
Government Factors					
1-Salient Issue				50%	50%
2- Available Resources			25%	50%	25%
3-Strengths & Weaknesses	25%			75%	
4-Opportunity Cost			25%	75%	
5- Perception of Risk		25%		25%	50%
6-Community Influence	25%			75%	
7-Operational Environment	25%			50%	25%
8-Severity of Problem	25%			50%	25%
9-Managerial Capabilities	25%			50%	25%
10-Technical Capabilities	25%			50%	25%
11-Home rule	25%		50%		25%

Table 9 provides a breakdown of how the panel rated each of the factors provided in the survey. The scale ranged from "Critical to Project Success" to "No Usefulness." Each factor received a majority rating of "useful" from the panel. *Useful* is indicated if more than 50% of the panel rated a factor anywhere from "Somewhat Useful to Critical to Project Success."

Panel Comments:

- Public organizations must consider the public in their collaborations at all times.
- I think that you have structured this incorrectly. The generic rankings are the critical path - the agency/city/region questions are ones that each potential collaborator needs to consider as they decide whether to become part of the collaboration. For instance: the collaborative needs to consider barriers/constraints and home rule may be a constraint particular to some of the entities. Any organization will need to assess all 7 of those factors before deciding to participate.
- Having a basis for the collaborative process and how each partner can contribute seems like a default starting point.
- All entities have to agree that an independent authority should be created. The only barrier is the unwillingness of a city council or commission to enter into an agreement. Home Rule has no bearing here. No entity has to determine the operation environment. No entity has to provide resources for the collaboration to succeed except to allow a vote to be held in their city.

The survey also revealed a new item that was not included in the survey but mentioned by a panel member as being noteworthy as an additional factor for consideration: Determine an agency's willingness to cooperate.

The participants were asked to rank the government-specific factors based on level of importance. The ranking results are indicated in Table 10.

Table 10

Panel Ranking of Government Specific Factors

RANKING	GOVERNMENT SPECIFIC FACTORS
75% voted as #1	Is the collaboration based on a salient public issue?
50% voted as #2	Determine available resources of each agency.
50% voted as #4	Each agency/region/city must determine the perception of risk in participating in the project.
50% voted as #5	Each agency/city/region must determine their type of operation environment and how it work function in the collaboration.
75% voted as #6	Determine the level of community influence for each agency/region/city and how the community reacts to the project.
50% voted as #7 and 50% voted as #9	Each agency/city/region must identify the managerial capabilities and strength.
50% voted as #8	Each agency/city/region must identify their technical capabilities and strength.
50% voted as #10	Each agency/city/region must identify the technical skill of the entity in their organization that will manage the effort.
75% voted as #11	Home Rule.
No rating (less than 50% in any one category)	Prior to the decision to collaborate, each agency/region/city needs to determine their opportunity costs for participating in the project.

Whether the collaboration is based on a salient public issue was voted as the number one government specific factor.

Table 11

Strong Majority Opinion as a Useful Factor

Majority Opinion - Factor Rating Breakdown	**Factor Count /Percent**
Factors receiving **100%** panel agreement rated as "useful to essential"	6 or (33.3%)
Factors receiving **75%** of panel agreement rated as "useful to essential"	4 or (22.2%))
Factors receiving rating of **75%** voted "very useful to essential"	12 or (66.6%)
Factors receiving a of **75%** agreement rating as "essential"	1 or (5.5%)
Factors receiving **100%** agreement as rating "somewhat useful to essential"	2 or (11.1%)
Factors receiving **75%** agreement rating as "very useful"	5 or (27%)

Table 12

Number of Factors and their Represented Percentage

# of Factors	**Equals Percent**
1	**.055**
2	**.111**
3	**.166**
4	**.222**
5	**.277**
6	**.333**
7	**.388**
8	**.444**
9	**.500**
10	**.555**
11	**.611**
12	**.666**
13	**.722**
14	**.777**
15	**.833**
16	**.888**
17	**.944**
18	**1.00**

Some factors received 75% or more of the panel's opinion as a strong agreement in respect to the degree of usefulness of a particular factor. They are indicated in Tables 11 and 12. Table 11 indicates how strong the factors were rated and how many factors were rated as such, where Table 12 shows how many factors it would take to reach a specific percentage.

The results of Survey One revealed that there was 100% agreement that the factors – both universal and government specific – are useful. However, the degree of usefulness varied ("Somewhat Useful" to "Critical to Project Success") on the majority of the factors. Few factors received a majority vote in any particular rating category. Where the collaborative effort is administered via a regional authority, collaborative factors were thought to be the least useful. As a group, universal factors were noted as being "very useful" to a regional authority type of collaboration.

The results of the first survey indicated that the collaborative factors identified in the literature review are useful and should be considered in the regional transportation industry for government agencies. How useful and where useful depends on the collaboration factor in question, how the factor is to be utilized and any region uniqueness. A situation-specific approach seems appropriate.

Survey Two. Survey Two (Appendix E) presented this summarized information to the panel to ensure panel agreement with the results. The panel was also queried to determine if the results were equally applicable to regional transit authorities. In addition, Survey Two attempted to gain a better understanding of regional transit authorities for the purpose of differentiating it from a regular regional collaboration and understanding why the factors would be less applicable and require more modifications if utilized in this environment. Last, Survey Two introduced the new factor identified in Survey One and asked for their responses.

Table 13

Degree of Panel Agreement on Usefulness of Factor

Analysis Note	Panel Agreement	Comments
Where the collaborative effort is administered via a regional authority, collaborative factors are the least useful and require the most modifications if there is any applicability.	67 %	
All 4 types of modifications mentioned in Survey Two; Question 2 should be considered in a collaborative project. 1. Specific to how the collaborative project is organized and run. 2. Specific to the region. 3. Specific to the governing board 4. Specific to the organization's task (i.e. transportation)	100 %	

Analysis Note	Panel Agreement	Comments
Government specific factors are more useful in determining the decision to collaborate while the universal factors are more appropriate in consideration of preliminary analysis in the collaborative effort. NOTE: One panel member noted that it was their opinion that it was the reverse; universal was more useful in determining the decision to collaborate while the government factors are for consideration of the preliminary analysis in the collaborative effort.	60%	Some comments: • These are typically the biggest roadblocks that should be considered, but it does not mean that the collaboration should not be pursued. • Successful regional collaboration can only occur if local leaders believe there is value added in the proposition • Collaborative readiness is largely a function of inter-governmental relationships, which is often either determined or resolved through "parent government" policies/legislation.
As a package, universal collaborative factors are useful or useful with modifications.	80%	

Analysis Note	Panel Agreement	Comments
As a package, government specific factors were viewed primarily as critical to useful.	80%	

Usefulness. Survey Two supports 100% majority agreement (based on a review of each individual factor) that both universal and government specific factors are useful in a collaboration. However, the panel again noted that if they are utilized in regional transportation, modifications specific to the industry would be required.

Table 14

Factors Used by Panel Members

% Panel to Agree on Use	*Factor*
100	Is the collaboration based on a salient public issue for each participating agency?
80	Identify known factors and barriers specific to the collaboration.
80	Determine partner organization/agency interaction.
80	Determine how leadership will be structured within the collaborative project.
80	Each agency/city/region must determine their type of operational environment and how it would function in a collaborative project.
60	Determine specific reasons for entities to collaborate. How will each organization benefit from the program?
60	Identify the current best practices associated with item to be addressed by the project.

% Panel to Agree on Use	*Factor*
60	Prior to the decision to collaborate, determine the level of community influence for each agency/region/city and how the community reacts to the project.

Panel members were asked which of the factors were currently being or had been practiced by their agency. One factor was identified as being utilized by all panel member agencies. The eight factors listed in Table 14 were identified as those that panel member agencies have used or currently practice. All others received 50% or fewer of panel member votes.

New factor added by panel member in Survey One. A new factor was identified in Survey One: Determine an agency's willingness to cooperate. Sixty percent agreed that it should be considered when determining collaborative readiness for regional transportation. However, there was no agreement on how to make that determination or how to gauge the degree of willingness. Ideas included

1. Meeting with the leadership assessing the issue,
2. Assessing current ability for elected and appointed leaders to sit for productive conversations related to shared or similar problems within their jurisdiction, and
3. Assessing entities' ability and/or inclination to focus on finding solutions to the problem.

Regional Authorities. As previously stated, none of the SMEs identified their organization as a strict regional collaborative. When asked what circumstances dictate a regional authority as a desired collaborative model, the panel answers were not definitive. The question was presented to determine if certain situations dictated a regional transit authority as the best answer. The answers provided seemed to indicate an either/or situation with no tangible

determination. ("Either you have one, or you don't"; "either you participate, or you don't.") In one comment, "shared philosophy of governance" was indicated as one of the reasons for a regional authority.

Fifty percent of the panel members identified funding as the driver to creating a regional authority. There was a 50/50 split on whether regional authorities were viewed as a type of collaborative effort. Fifty percent said yes, and 50% said they didn't know the answer to that question. There was also a 50/50 panel split on whether regional transportation authorities were the result of the lack of the ability to collaborate to address a problem. (Panelists answered either *yes* or *don't know*). Last, there was majority agreement (75%) that universal factors were not considered "very useful" to a regional authority type collaboration.

Table 15

Factors Not Applicable to a Regional Authority

Factors not applicable to a regional authority *(Based on its current operational state)*
1. Prior to the decision to collaborate, each agency/region/city needs to determine their opportunity costs for participating in the project.
2. Each agency/city/region must determine their type of operational environment and how it would function in a collaborative project.
3. Prior to the decision to collaborate, each agency/city/region must identify the severity of the problem for which the project is expected to correct/enhance.
4. Prior to the decision to collaborate, each agency/city/region must identify its managerial capabilities and strength (weak, strong, etc.) as it relates to the project or project purpose.
5. Prior to the decision to collaborate, each agency/city/region must identify their technical capabilities and strength as it relates to the project or project purpose.
6. Prior to the decision to collaborate, each agency/city/region must identify the technical skill of the entities within the organization that will manage the effort as the agency representative.
7. How important is Home Rule to the Jurisdictional of multiple government agencies? Is it a factor in the decision to collaborate? Will it impact how the agency determines to build the collaboration?

For the seven government specific factors indicated in Table 15, there was 100% agreement that these factors were not applicable to a regional authority type of collaboration.

Retrospective view. There was 100% agreement that Home Rule was not considered in the operation of their regional transportation agency; however, it would have been beneficial if it had been utilized.

Table 16

Factors Not Being Used

Factors identified as not being used but could have benefited
• Determine partner strengths and weaknesses.
• Analyze the technical readiness of each potential partner.
• Prior to collaboration, determine available resources of each agency.
• Prior to the decision to collaborate, each agency/region/city needs to determine their opportunity costs for participating in the project.
• Prior to the decision to collaborate, determine the level of community influence for each agency/region/city and how the community reacts to the project.
• Prior to the decision to collaborate, each agency/city/region must identify the severity of the problem for which the project is expected to correct/enhance.
• Prior to the decision to collaborate, each agency/city/region must identify its managerial capabilities and strength (weak, strong, etc.) as it relates to the project or project purpose.
• Prior to the decision to collaborate, each agency/city/region must identify their technical capabilities and strength as it relates to the project or project purpose
• Prior to the decision to collaborate, each agency/city/region must identify the technical skill of the entities within the organization that will manage the effort as the agency representative.

The factors indicated in Table 16 were identified as not being used but where the panel believes their RTA could have benefited. NOTE: There was not a majority agreement on any of these factors.

There was 100% agreement for the following two items:

1. Regional authorities would be more effective if they worked with local agencies in a more collaborative manner.
2. Where there is a regional authority, the collaboration factors would be useful in the drafting, development, and the construct of the authority.

NOTE: The second item above would most likely transpire before the selection of the members/board.

Table 17

Factors for Use in Policy Development

Considered useful in the drafting or development of a regional authority/policy	
%	Factor
100	Determine specific reasons for entities to collaborate. How will each organization benefit from the program?
100	Determine how leadership will be structured within the collaborative project.
75	Identify known barriers and constraints specific to the collaboration.
75	Determine partner organization/agency interaction.
75	Identify the current best practices associated with item to be addressed by the project.
75	Is the collaboration based on a salient public issue for each participating agency?
75	Prior to the decision to collaborate, determine the level of community influence for each agency/region/city and how the community reacts to the project.
75	Prior to the decision to collaborate, each agency/city/region must identify the severity of the problem for which the project is expected to correct/enhance.

The majority of the panel noted the factors listed in Table 17 as useful in the drafting or development of a regional authority/policy. All other factors received no more than 50% of the panel rating. As such, although there was agreement on usefulness, there was not majority agreement.

Panel comments.

1. Here we are only looking at the construct of the agreement to create the authority. What is the transfer agreement, or what are the bylaws of the organization, and what is being sought for public approval.
2. All of the above are obviously relevant. Their significance of importance varies, however.

Industry standards/best practices. Sixty percent of the panel said that there were no clear industry standards in the field of regional transportation. When asked about industry "best practices," 50% said there were industry best practices and 50% said there were none.

Comments.

1. I am not aware of best practices.
2. Several regional transportation models can be used as examples.
3. There are a number of successful regional partnerships in the country and in the world - looking at their governing documents provides many clues for what works and doesn't.
4. The term "best practices" implies a one-fits-all ideal. Regions and their needs are too unique and variant for a one-fits-all approach.

Other applicable information for consideration.

Table 18

Level of Importance of Jurisdiction Policies

General Breakdown	Percent
Very important	60%
Somewhat important	40%

Table 19

Jurisdictional Breakdown of Degree of Importance

Degree of Importance	Jurisdiction
Important – Very Important	Federal
Somewhat – Very Important	State
Somewhat – Very Important	Local

There was 100% agreement that local, state, and federal policies and jurisdictional agreements were all important in a regional collaborative effort.

Survey One Individual Factor Analysis

Each collaborative factor from Survey One (universal and government-specific) was analyzed and again presented to the panel for agreement/disagreement with the findings in the second survey. The analysis was further segmented in respect to both a regional authority and a regional collaborative effort. There was majority agreement on all of the Survey One analyses with the exception of the following:

Factor U3: Determining partner strengths and weaknesses. (See Retro Section.)

Results from Survey One. Determining partner strengths and weaknesses is important, but the degree of importance varied. Where there is a regional transit authority, it was rated as being useful with modifications. Knowing what each agency brings to the project helps. Having

a diverse set of skills across the partner agencies and determining how they support the project is very useful. However, it is not useful in an environment where the public votes for the regional transit system.

Do you agree with this assessment in respect to a regional collaboration?

Panel Response Survey Two: 25% yes / 50% no/ 25% do not know

Do you agree with this assessment in respect to a regional transit authority?

Panel Response Survey Two: 25% yes / 50% no/ 25% do not know

Only 25% of the SMEs agreed with the Survey One analysis; however, it cannot be determined whether the comment regarding the lack of usefulness to an RTA clouded the analysis or not, considering that the majority of the panel identifies their agency as an RTA.

Factor U4: Determine partner organization/agency interaction.

Results from Survey One. Where there is a regional transit authority, it was rated as not important, as the one organization (regional authority) has to share information with is members. Seventy-five percent rated it somewhat important to very important.

Do you agree with this assessment in respect to a regional collaboration?

Panel Response Survey Two: 50% yes / 50% no

Do you agree with this assessment in respect to a regional transit authority?

Panel Response Survey Two: 50% yes / 50% no

Where 75% noted it as important in Survey One, only 50% rated it important in Survey Two. It should be noted that Survey Two elaborated on the uniqueness of regional transit authorities. Having to take RTAs into account, this factor no longer maintains majority opinion in respect to the level of importance.

Factor U7: Identify the current best practices associated with item to be addressed by the project.

Results from Survey One. Where there is a regional authority, it is considered "not important," as each region is unique, and therefore no "best practices" are available. On this factor, the response was varied. Twenty-five percent rated it somewhat important, 25% said it is very important, 25% noted it as essential, and 25% noted it as not useful.

Do you agree with this assessment in respect to a regional collaboration?

Panel Response Survey Two: 50% yes / 25% no / 25% do not know

Do you agree with this assessment in respect to a regional transit authority?

Panel Response Survey Two: 50% yes / 25% no / 25% do not know

Where 75% agreed in Survey One, only 50% agreed in Survey Two. This supports the 50/50 split in respect to the panel existence/awareness of industry standards/best practices.

Factor G7: Prior to the decision to collaborate, each agency/city/region must identify the severity of the problem for which the project is expected to correct/enhance. (See Retro Section.)

Results from Survey One. Fifty percent noted as being useful with modifications, 25% noted as very important, and 25% rated as not essential. If the agency is a regional authority, it fell into the not essential category.

Do you agree with this assessment in respect to a regional collaboration?

Panel Response Survey Two: 75% yes / 25% no

Do you agree with this assessment in respect to a regional transit authority?

Panel Response Survey Two: 50% yes / 50% no

For the regional collaboration category, 75% in Survey One agreed in Survey Two. In respect to an RTA, it should be noted that Survey Two elaborated on the unique factor of

regional transit authorities. Taking RTAs into account, this factor no longer maintains majority opinion in respect to the level of importance.

Factor G8: Prior to the decision to collaborate, each agency/city/region must identify its managerial capabilities and strength (weak, strong, etc.) as it relates to the project or project purpose. (See Retro Section.)

Results from Survey One. Fifty percent noted as being very useful, 25% noted as critical, and 25% rated as not essential. If the agency is a regional authority, it fell into the not essential category, as there is no interactivity between the authority and local agencies.

Do you agree with this assessment in respect to a regional collaboration?

Panel Response Survey Two: 50% yes / 50% no

Do you agree with this assessment in respect to a regional transit authority?

Panel Response Survey Two: 50% yes / 50% no

There was a 50/50 split on the analysis of Survey One for this factor.

Factor G9: Prior to the decision to collaborate, each agency/city/region must identify their technical capabilities and strength as it relates to the project or project purpose. (See Retro Section.)

Results from Survey One. Fifty percent noted as being very useful, 25% noted as critical and 25% rated as not essential. If the agency is a regional authority, it fell into the not essential category, as there is no interactivity between the authority and local agencies.

Do you agree with this assessment in respect to a regional collaboration?

Panel Response Survey Two: 50% yes / 50% no

Do you agree with this assessment in respect to a regional transit authority?

Panel Response Survey Two: 50% yes / 50% no

There was a 50/50 split on the analysis of Survey One for this factor.

Factor G10: Prior to the decision to collaborate, each agency/city/region must identify the technical skill of the entities within the organization that will manage the effort as the agency representative. (See Retro Section.)

Results from Survey One. Fifty percent noted as being very useful, 25% noted as critical, and 25% rated as not essential. If the agency is a regional authority, it fell into the not essential category, as there is no interaction between the authority and local agencies.

Do you agree with this assessment in respect to a regional collaboration?

Panel Response Survey Two: 50% yes / 50% no

Do you agree with this assessment in respect to a regional transit authority?

Panel Response Survey Two: 50% yes / 50% no

There was a 50/50 split on the analysis of Survey One for this factor.

The above eight factors did not maintain the strong agreement demonstrated in Survey One in respect to how useful the individual factors were to a regional transportation of government agencies. The majority of the SMEs did identify themselves as an RTA. In Survey One, regional transportation authorities were not mentioned. When they were mentioned in Survey Two, it may have clouded the thought process. Seven of the eight factors above are indicated on Table 8 (Factors Not Helpful to a Regional Transit Authority) as not being very helpful to an RTA.

Summary

Survey One and Two data results support the theory that in the field of regional transportation, the collaborative factors are useful to the industry. Using the factors in a "checklist" capacity would be beneficial to the industry. This includes regional authorities. The

degree of usefulness of the various factors, however, would depend on the modifications required and the degree of applicability to the region in question. There was 100% agreement that the following modifications should always be considered:

- Specific to how the collaborative project is organized and run.
- Specific to the region.
- Specific to the governing board
- Specific to the organization's task (i.e. transportation)

The specific types of modifications needed would be unique to the type of project, region, task, and so on. Panel members identified eight of the factors as currently being used in the industry, but not necessarily in a consistent manner or across the industry.

Although the factors were identified as useful for regional authorities, there were some identified as "not applicable" and some as "useful with modifications," while other factors were noted as "not being used, but could have been beneficial." Last, it was indicated that some factors could be very beneficial in drafting the policy related to a regional transit authority.

Other noteworthy items were the fact that the existence of industry standards or best practices for the industry was not in agreement. This was a very unclear item. While some thought there were standards, others were not aware of any best practices. However, it was also stated that the very uniqueness of the region prohibits a standard process. Last, government policies (specifically federal policy) were noted as being important in a regional collaboration.

At the beginning of the research, the following questions were asked. The answers to the questions are indicated below.

1. What are the factors that, when used, contribute toward a successful government-sponsored regional transportation collaborative project?

As a group, there was majority agreement that the factors are very useful; however, on an individual basis, there was majority agreement in both surveys that the eleven factors listed below would contribute toward a successful collaborative project of a government nature.

Table 20

Factors that Contribute Toward a Successful Collaborative Regional Transportation Government project by Factor Type

Factor #	Factor Type
Universal	
1	Determine specific *reasons for the entities to collaborate*. How will each organization benefit from the project? (100% agreement on usefulness with 75% rated as "Critical to Project," and 60% have used in practice.)
2	Identify all known *barriers and constraints* specific to the collaborative effort. What could block the success of this effort? (100% agreement on usefulness with 75% rated "Very Useful," and 80% have used in practice.)
5	Analyze the *technical readiness* of each potential partner. (100% agreement on usefulness with 75% rated as "Very Useful.")
6	Determine how *leadership will be structured* within the collaborative project. Will it be shared or will one agency lead the venture? (75% agreement on usefulness with 50% rated "Critical to Project" and 25% as "Useful" and 80% have used in practice.)
Government	
8	Is the collaboration based on a *salient public issue* for each participating agency? (100% agreement on usefulness with 50% rated as "Critical to Project" and 50% rated as "Very Useful" and 100% have used in practice.)
9	Prior to collaboration, determine *available resources* of each agency. (100% agreement on usefulness with 25% rated as "Critical to Project," 50% "Very Useful," and 25% as "Useful.")
10	Prior to the decision to collaborate, each agency/region/city needs to determine their *opportunity costs* for participating in the project. (100% agreement on usefulness with 75% rated as "Very Useful" and 25% rated as "Useful.")
11	Each agency/region/city must determine the *perception of risk* in participating in the project. (100% agreement on usefulness with 50% rated as "Critical to Project, 25% rated "Very Useful" and 25% rated as "Somewhat Useful.")
12	Prior to the decision to collaborate, determine the level of *community influence* for each agency/region/city and how the community reacts to the project. (75% agreement as "Very Useful" where 60% have used in practice.)

Factor #	Factor Type
13	Each agency/city/region must determine their type of *operational environment* and how it would function in a collaborative project. (75% agreement on usefulness with 25% rated as "Critical to Project" and 50% rated "Very Useful" and 80% have used in practice.)
18	How important is *Home Rule* to the collaboration of multiple government agencies? Is it a factor in the decision to collaborate? Will it impact how the agency determines to build the collaboration? (75% agreement on usefulness with 25% rated as "Critical to Project" and 50% rated as "Useful.")

The data support the idea that although every factor does not have the same value of usefulness (specifically from one RTA to another), all of the factors should be taken into consideration to ensure a successful government sponsored regional collaborative project. Utilizing the factors as a "checklist" would be beneficial in ensuring a successful collaboration. When a regional authority is involved, some of the factors were indicated as being more effective during the stage of policy development.

2. How are these factors viewed and prioritized by individuals who have collaboration experience in a government environment?

Table 21

Panel Ranking of Factors that Contribute Toward a Successful Collaboration

Factor Ranking	Factor
1	Determine specific *reasons for the entities to collaborate*. How will each organization benefit from the project? (100% agreement on usefulness with 75% rated "Critical to Project" and 60% have used in practice.)
2	Is the collaboration based on a *salient public issue* for each participating agency? (100% agreement on usefulness with 50% indicated as "Critical to Project" and 50% rated as "Very Useful" and 100% have used in practice.)
7	Each agency/region/city must determine the *perception of risk* in participating in the project. (100% agreement on usefulness with 50% rated "Critical to Project," 25% "Very Useful," and 25% "Somewhat Useful.")

Factor Ranking	Factor
5	Prior to collaboration, determine *available resources* of each agency. (100% agreement on usefulness with 25% rated as "Critical to Project," 50% rated as "Very Useful," and 25% as "Useful.") *
3	Identify all known *barriers and constraints* specific to the collaborative effort. What could block the success of this effort? (100% agreement on usefulness with 75% rated as "Very Useful," and 80% have used in practice.)
4	Analyze the *technical readiness* of each potential partner. (100% agreement on usefulness with 75% rated as "Very Useful.")
8	Prior to the decision to collaborate, each agency/region/city needs to determine their *opportunity costs* for participating in the project. (100% agreement on usefulness with 75% rating as "Very Useful" and 25% rated as "Useful.")
6	Determine how *leadership will be structured* within the collaborative project. Will it be shared or will one agency lead the venture? (75% agreement on usefulness with 50% rated as "Critical to Project" and 25% rated as "Useful," and 80% have used in practice.)
10	Each agency/city/region must determine their type of *operational environment* and how it work function in a collaborative project. (75% agreement on usefulness with 25% rated as "Critical to Project," 50% rated "Very Useful," and 80% have used in practice.)
9	Prior to the decision to collaborate, determine the level of *community influence* for each agency/region/city and how the community reacts to the project. (75% rated as "Very Useful" and 60% have used in practice.) *
11	How important is *Home Rule* to the collaboration of multiple government agencies? Is it a factor in the decision to collaborate? Will it impact how the agency determines to build the collaboration? (75% agreement on usefulness where 25% rated as "Critical to Project" and 50% rated as "Useful.") *

As a group, the factors were viewed as useful. Individually they were prioritized anywhere from "essential" to "not needed," dependent upon the subject matter expert. Although there were some factors where there was a majority agreement on the degree of usefulness, for most of the factors, the degree of usefulness varied within the panel.

The factors, in general, were viewed as useful; however, the data suggest that the government factors were viewed as the least useful. This was contrary to comments that universal factors were less useful. Table 8 (from Survey One) first identified factors not useful to an RTA, seven of which are government factors. Table 10 ranks the government factors, and Table 13 shows that 80% of the panel agreed they are useful. The difference could be attributed to the "current state of operation" as opposed to the "desired state of operation."

3. Can the identified factors, along with the framework depicted in Figure 1, be incorporated into the collaborative readiness model and used for assessing the potential for collaboration between and among local and regional government entities as it relates to a regional transportation project?

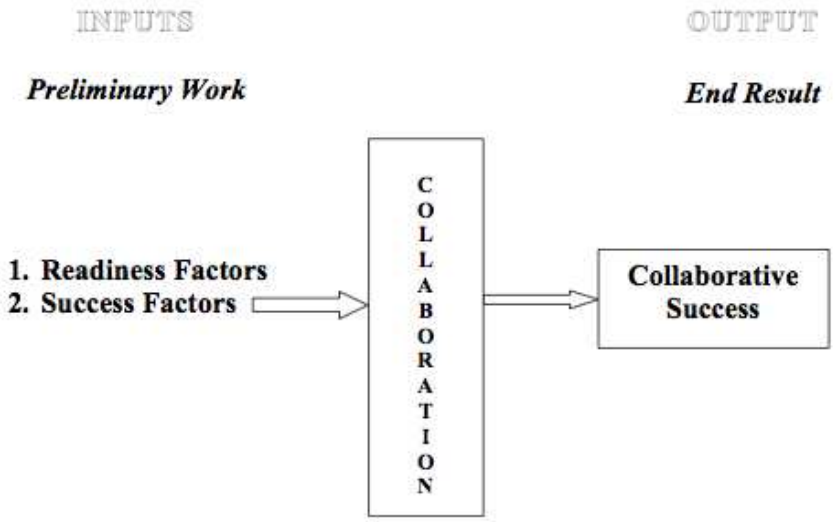

Figure 10. Collaborative Readiness Components (2)

Based on the analysis of the data collected and the identified factors, the framework depicted in Figure 1 can be incorporated into the collaborative readiness model and used to assist

in the assessment of the potential success between and among local and regional government entities as it relates to a regional transportation project. In addition, the data indicate that the identified factors can also be used in the policy-making process of a regional transit authority to assist in increasing the potential success of this type of project.

A new factor was identified in Survey One through one of the SME comments: Determine the degree of willingness to collaborate. This factor was presented to the panel for critique in Survey Two and to determine if there was a way to gauge the degree of willingness. While the panel agreed on the applicability of the factor, there were no concrete answers or agreement on how to make such an assessment.

The final conclusion is that the factors are perceived as useful to the regional transportation entities as they relate to government and other agencies. The degree of usefulness for these factors varied based on the perceptions of the subject matter experts and may be the result of the difference in project, region, and local policies. A different context may impact whether a factor has a strong consensus for being critical, useful or not. Some situations would increase or decrease the factor relevance for a particular factor such as a structure of leadership or environment. As such, as opposed to "best practices," factors could help to ensure a degree of continuity and consideration of all conditions.

Finally, the researcher observed that the participation in this project has stimulated the panel's thinking and provided them food for thought as to how they do business today and how they should do business going forward, such as using the factors to develop RTA policy along with the new factor of "determining the degree of willingness to cooperate."

For most organizations, the factors – as a group – should be considered in the development of a collaborative effort between and among local and regional government entities

for the purposes of regional transportation. Where there is a regional authority, the factors could also be very useful in the policy development stage of the project.

The next chapter will summarize the entirety of the research project, provide recommendations based on the research data from the subject matter experts, and provide a conclusion based on the research problem and research data implications.

Chapter Five: Discussion and Recommendations

This chapter includes a discussion of the data analysis in light of the problem stated in Chapter One (addressing the issue of regional collaboration of government entities), the importance of collaborations to both government and non-government entities, and what, if any, elements could be considered useful with the collaboration of regional transportation projects. This discussion includes conclusions emerging from the data, a proposed model to guide those pursuing regional transportation initiatives, recommendations for future study on the topic of regional transportation collaborations of a government nature, and recommendations for collaboration policy. In addition, this chapter summarizes the findings by round, addresses the research questions, considers implications of this study, and, finally, offers recommendations for future study.

Discussion of the Findings

This study focused on the use of collaboration as a tool for enhancing the probability of success of regional transportation projects. It was assumed that collaboration is key to the future success of governments since it supports the responsible usage of limited natural resources. Despite the clear need for collaboration, one must also consider the enormity of the task and the substantial amount of time it takes to put together a collaborative project. The perceived expense, time, and effort required for collaborative projects can be sufficiently daunting for an agency and could cause decision-makers to avoid pursuing a collaborative effort when it could be the best alternative. It is understood that reducing barriers to collaboration is critical to the effort.

To examine this problem, barriers to regional collaboration were identified via a literature review. Experts in government regional transportation positions were identified as the next step and asked to evaluate the proposed barriers to government regional transportation projects based

on their personal experience. The goal was to determine whether there was consensus within the panel regarding how to best minimize these identified barriers and any other barriers they recognized. These key barriers could be used as a basis for determining the degree of readiness for a collaborative effort. The identification of a method for determining the degree of readiness for collaboration was the main thrust of this research. The research method selected for this effort was a modified Delphi approach.

To determine what methods are conducive to an effective collaboration of a government entity, an extensive literature review was conducted, with the field of regional transportation as the subject matter. The end result was the identification of proposed factors that contribute to a successful collaboration as well as factors specific to collaboration among government entities.

After the Delphi panel was established, the panel was asked to evaluate whether these identified factors could be used in a model to determine the degree of collaborative readiness. The researcher assumes that there are items (i.e., factors) that are indicative of a successful collaboration performed by any entity – governmental or non-governmental. These items were presented to the Delphi panel consisting of subject matter experts (SMEs) currently holding leadership positions in agencies responsible for government regional transportation organizations.

Round One discussion. An examination of past research revealed that while there is agreement that collaborations are beneficial, no instrument that can be used to assist in determining or gauging the degree of readiness for potential projects could be found (Thompson, 2009; Imperial, 2010). Survey One consisted of the factors that were identified in the literature review. An analysis of the research data also revealed interesting information regarding government collaborations as it relates to the applicability of the factors. Within the data, it was

noted that the various types of collaborations for regional transportation can be extremely different from one project to another and that any model would have to be modified based on the individual project under consideration. Within government, there are a multitude of types of collaborations as indicated in Table 22.

Table 22

Types of Government Collaboration

Type of Collaboration	**Comments**
Intergovernmental Local Emergency Manager	Rapid changes in the scope and severity of the issues increase the extent of intergovernmental collaboration necessary to address challenges (McGuire, 2010)
Collaborative Public Manager (Indiana University)	Managers of public institutions in a collaborative manner. (Ex. Superintendent of a school district) McGuire, 2003
Governance of Networks	Another name for "Collaborative Public Manager). "Public managers often use collaboration as a strategy to improve the governance of inter-organizational networks". Imperial, 2005
Inter-organizational	
ILA – Inter-Local Agreement	useful tool for municipal and county governments to increase the effectiveness and efficiency of local government services (Chen, 2009)
JUG – UK for Joined Up Government	
Outsourcing	
Contracting	

The panel indicated that where a factor is applicable, fitting those factors to their collaborative project would be required. Survey Two addressed the types of modifications that would be required.

There was majority agreement that the factors were useful. However, because RTAs were brought up by one of the SMEs who questioned the applicability of many of the factors to a regional authority type of organization, the impact was unclear. At that point, understanding RTAs and their significance to regional government transportation of a collaborative nature became important to the study. Additionally, it was important to understand how the collaborative factors affected them since RTAs are widespread in the field of study. Survey Two sought to solidify the majority agreement and expounded on the significance and impact of the factors to an RTA.

The panel identified a new factor during round one: "Determine degree of willingness to participate." This seems to complement Wang's (2010) research, which notes that if an individual is asked to participate in a collaborative project, he/she must be able to identify with the project or its success, see financial benefits from cooperating, or show a past track record for such support. (*NOTE: In Wang's research, this is indicated as altruism*.) For purposes of this research, history would support how much the individual would be willing to devote to the project. Reviewing an individual's history or track record should help to determine whether there is a willingness to participate.

The following seven factors were rated in Survey One by the majority as useful for a collaborative project. However, they were identified in Survey Two as not useful to a Regional Transit Authority.

- determine their opportunity costs
- determine their type of operational environment and how it would function in a collaborative
- identify the severity of the problem
- identify its managerial capabilities and strength
- identify their technical capabilities and strength
- identify the technical skill of the entities within the organization
- determine the importance of Home Rule.

Survey One validated the factors identified during the literature review for applicability to general collaboration to regional transportation projects. Survey One also added a new factor that was identified by the panel. Among the subject matter experts, there was majority agreement that the factors were useful. However, it was also determined that the impact of the factors to an RTA was unclear.

Rounds Two and Three discussion. An analysis of the data supported a need for collaboration in government transportation projects of a regional nature. When studying past collaborative research projects and analyzing the research data, we see a lack of understanding as to how the collaborative process may differ from one agency to another. Because there was no foundation or basis from which to review, there was nothing that could be used to gauge the degree of readiness of a government collaborative project. To ensure that there was nothing available in the industry, Delphi panel members were asked if they were aware of any industry best practices. Other than referencing other successful regional government transportation projects, nothing was identified.

As previously mentioned, the panel members indicated that where a factor is applicable, fitting those factors to their collaborative project would be required. The following four items were noted in Survey Two as needing to be considered when modifying or fitting the factor to the project.

1. Specific to how the collaborative project is organized and run
2. Specific to the region
3. Specific to the governing board
4. Specific to the organization's task (i.e. transportation).

The six factors noted below were identified in Survey One as useful and identified in Survey Two as being factors that were not used by the RTA but could have been beneficial:

- determine their opportunity costs for participating in the project.
- identify their technical capabilities and strength
- identify the technical skill of the entities within the organization
- identify its managerial capabilities and strength
- identify the severity of the problem
- determine the importance of Home Rule.

This fluctuation between useful versus not useful of some of the factors, specifically as it pertains to an RTA, was confusing. However, it seems to indicate that there are not currently any industry best practices, and the factors would be beneficial if incorporated in the initial process. This vacillation does impact how the research questions were answered. Although the SMEs continue to indicate overall that the factors are applicable, there is something unique to RTAs that must be understood.

Discussion by Research Question

The research questions are indicated below. Understanding how the analysis addresses the questions left room for interpretation, even though the panel rated them as useful. This perceived ambiguity is due to the uniqueness of collaborating via an RTA versus a traditional collaboration project and understanding how the difference changes the dynamics of the relationship because of the framework or structure of the organization.

The first research question. *"What are the factors that, when used, contribute toward a successful government sponsored regional transportation collaborative project?"*

In general, the majority of the panel rated all of the factors useful. However, on an individual basis, 11 (61%) of factors were noted as contributing toward a successful government sponsored regional transportation collaborative undertaking.

1. Determine specific reasons for the entities to collaborate.
2. Identify all known barriers and constraints specific to the collaborative effort.
3. Analyze the technical readiness of each potential partner.
4. Determine how leadership will be structured within the collaborative project.
5. Determine whether the collaborative is based on a salient public issue for each participating agency.
6. Prior to collaboration, determine available resources of each agency.
7. Prior to the decision to collaborate, each agency/region/city needs to determine their opportunity costs for participating in the project.
8. Each agency/region/city must determine the perception of risk in participating in the project.

9. Prior to the decision to collaborate, determine the level of community influence for each agency/region/city and how the community reacts to the project.

10. Each agency/city/region must determine their type of operational environment and how it would function in a collaborative project.

11. Determine how important Home Rule is to the collaboration of multiple government agencies.

The remaining seven factors (39%) were identified as not necessarily being useful but should be used in consideration for the project in question.

1. Determine partner strengths.
2. Determine *partner organization/agency interaction*.
3. Analyze the *technical readiness* of each potential partner.
4. Prior to the decision to collaborate, each agency/city/region must identify the *severity of the problem* for which the project is expected to correct/enhance.
5. Prior to the decision to collaborate, each agency/city/region must *identify its managerial capabilities* and strength (weak, strong, etc.) as it relates to the project or project purpose
6. Prior to the decision to collaborate, each agency/city/region must identify their *technical capabilities* and strength as it relates to the project or project purpose.
7. Prior to the decision to collaborate, each agency/city/region must identify the *technical skill* of the entity in their organization that will manage the effort as the agency representative.

The second research question. "*How are these factors viewed and prioritized by individuals who have collaboration experience in a government environment*?"

The eleven factors noted above are prioritized by the SMEs as follows:

Table 23

Prioritization of Factors by SMEs

Factor #	Factor Type
	Universal
1	Determine specific *reasons for the entities to collaborate*. How will each organization benefit from the project? (100% agreement on usefulness with 75% rated as "Critical to Project," and 60% have used in practice.)
2	Identify all known *barriers and constraints* specific to the collaborative effort. What could block the success of this effort? (100% agreement on usefulness with 75% rated "Very Useful," and 80% have used in practice.)
5	Analyze the *technical readiness* of each potential partner. (100% agreement on usefulness with 75% rated as "Very Useful.")
6	Determine how *leadership will be structured* within the collaborative project. Will it be shared or will one agency lead the venture? (75% agreement on usefulness with 50% rated "Critical to Project" and 25% as "Useful," and 80% have used in practice.)
	Government
8	Is the collaboration based on a *salient public issue* for each participating agency? (100% agreement on usefulness with 50% rated as "Critical to Project" and 50% rated as "Very Useful," and 100% have used in practice.)
9	Prior to collaboration, determine *available resources* of each agency. (100% agreement on usefulness with 25% rated as "Critical to Project," 50% "Very Useful," and 25% as "Useful.")
10	Prior to the decision to collaborate, each agency/region/city needs to determine their *opportunity costs* for participating in the project. (100% agreement on usefulness with 75% rated as "Very Useful" and 25% rated as "Useful.")
11	Each agency/region/city must determine the *perception of risk* in participating in the project. (100% agreement on usefulness with 50% rated as "Critical to Project," 25% rated "Very Useful," and 25% rated as "Somewhat Useful.")
12	Prior to the decision to collaborate, determine the level of *community influence* for each agency/region/city and how the community reacts to the project. (75% agreement as "Very Useful," where 60% have used in practice.)

Factor #	Factor Type
13	Each agency/city/region must determine their type of *operational environment* and how it would function in a collaborative project. (75% agreement on usefulness with 25% rated as "Critical to Project" and 50% rated "Very Useful," and 80% have used in practice.)
18	How important is *Home Rule* to the collaboration of multiple government agencies? Is it a factor in the decision to collaborate? Will it impact how the agency determines to build the collaboration? (75% agreement on usefulness with 25% rated as "Critical to Project" and 50% rated as "Useful.")

All other factors were determined to be useful in regard to including them on a checklist so that they could be considered for applicability based on the uniqueness of the project, but are not essential.

The third research question. "*Can the identified factors, along with the framework depicted in Figure 1, be incorporated into the collaborative readiness model and used for assessing the potential for collaboration between and among local and regional government entities as it relates to a regional transportation project?"*

The answer to Question Three is "yes." In addition to the eleven identified factors, the remaining seven factors can also be incorporated into the framework depicted in Figure 1 and used in the collaborative readiness model (See Figures 14 & 18). Overwhelmingly, the majority of the panel agreed in both surveys that using the factors as a checklist will help in assessing the current state of readiness for collaboration between and among local and regional government entities as it relates to a regional transportation project.

Figure 11, 12, and 13 present three components of a model that can be used to assess the degree of collaborative readiness for a basic regional mass transportation project. Section I presents the process prior to developing the framework of the initiative, while Section II represents the actual framework of the project and Section III represents the steps subsequent to

developing the framework and encompasses the general process to implement the collaborative project. Figure 14 provides an overall view of the complete basic collaborative model. Figure 15, 16, and 17 represent the same information as Figures 11, 12 and 13 with the exception that it is specific to a Regional Transit Authority. Figure 18 provides an overall view of the complete RTA collaborative model.

Basic Regional Transportation Collaboration Model – Section 1

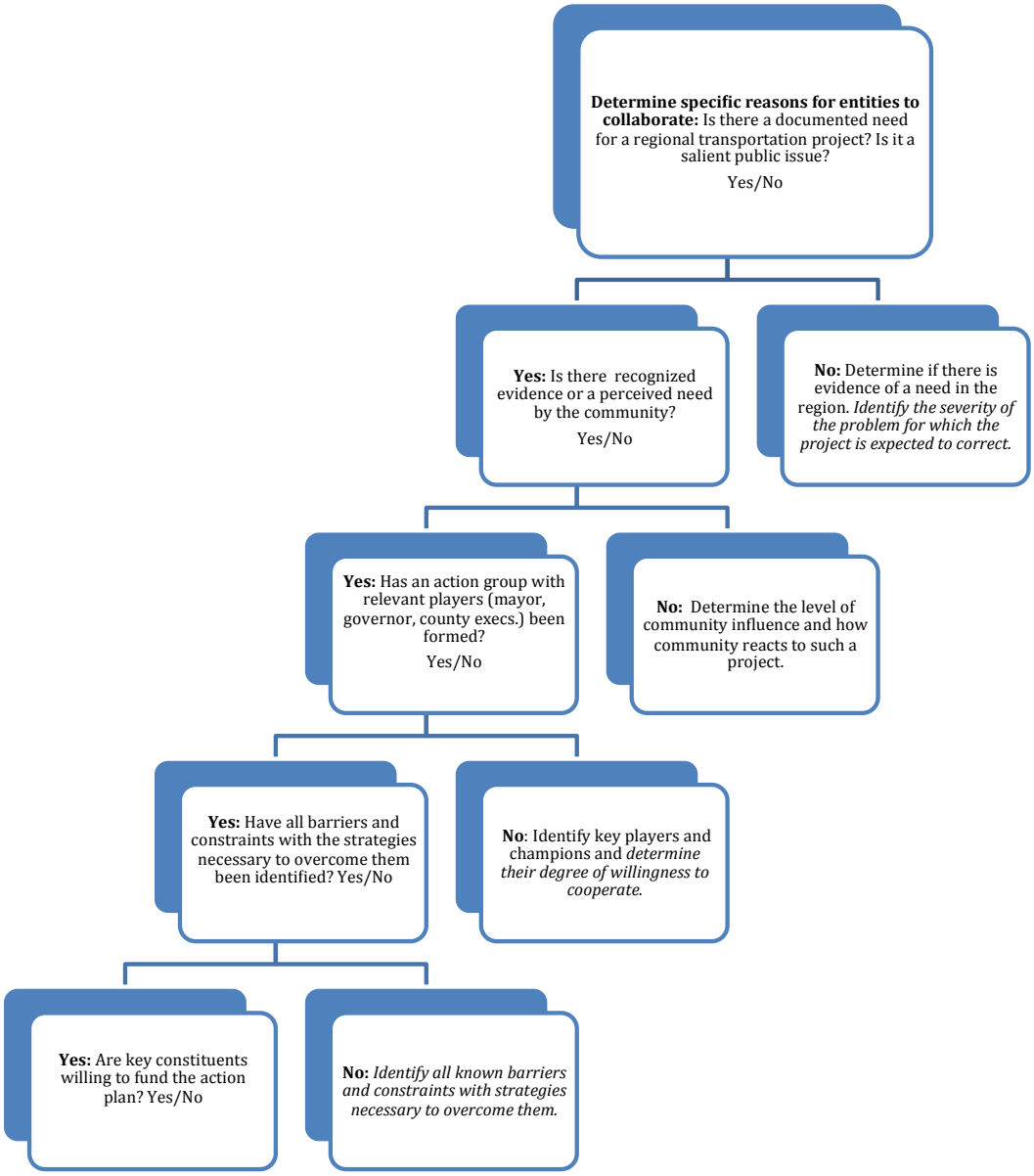

Figure 11. Basic Regional Transportation Collaboration Model Section 1

Basic Regional Transportation Collaboration Model – Section 2

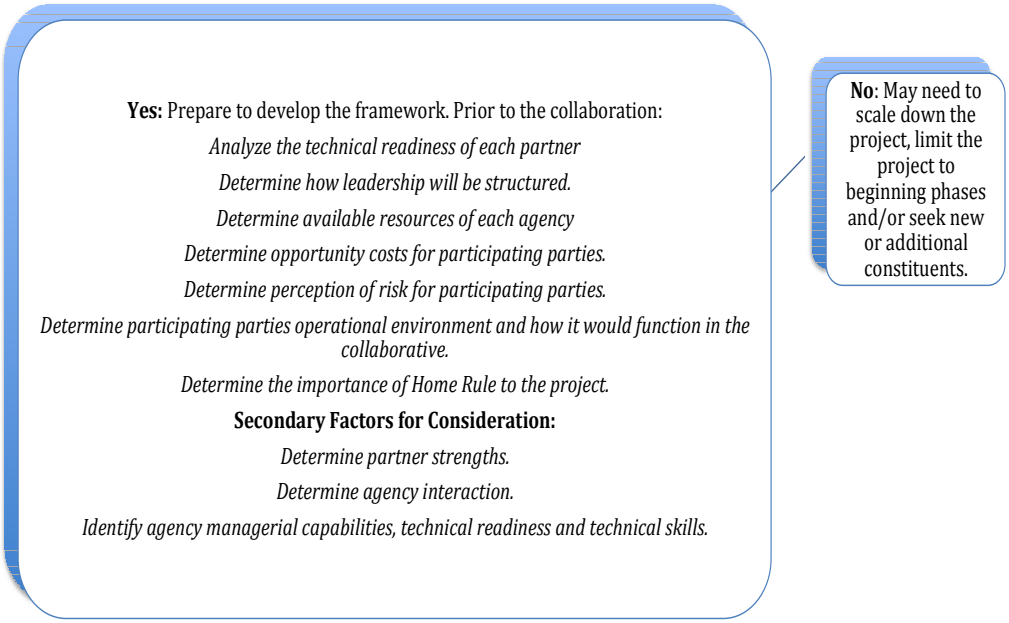

Figure 12. Basic Regional Transportation Collaboration Model - Section 2

Basic Regional Transportation Collaboration Model – Section 3

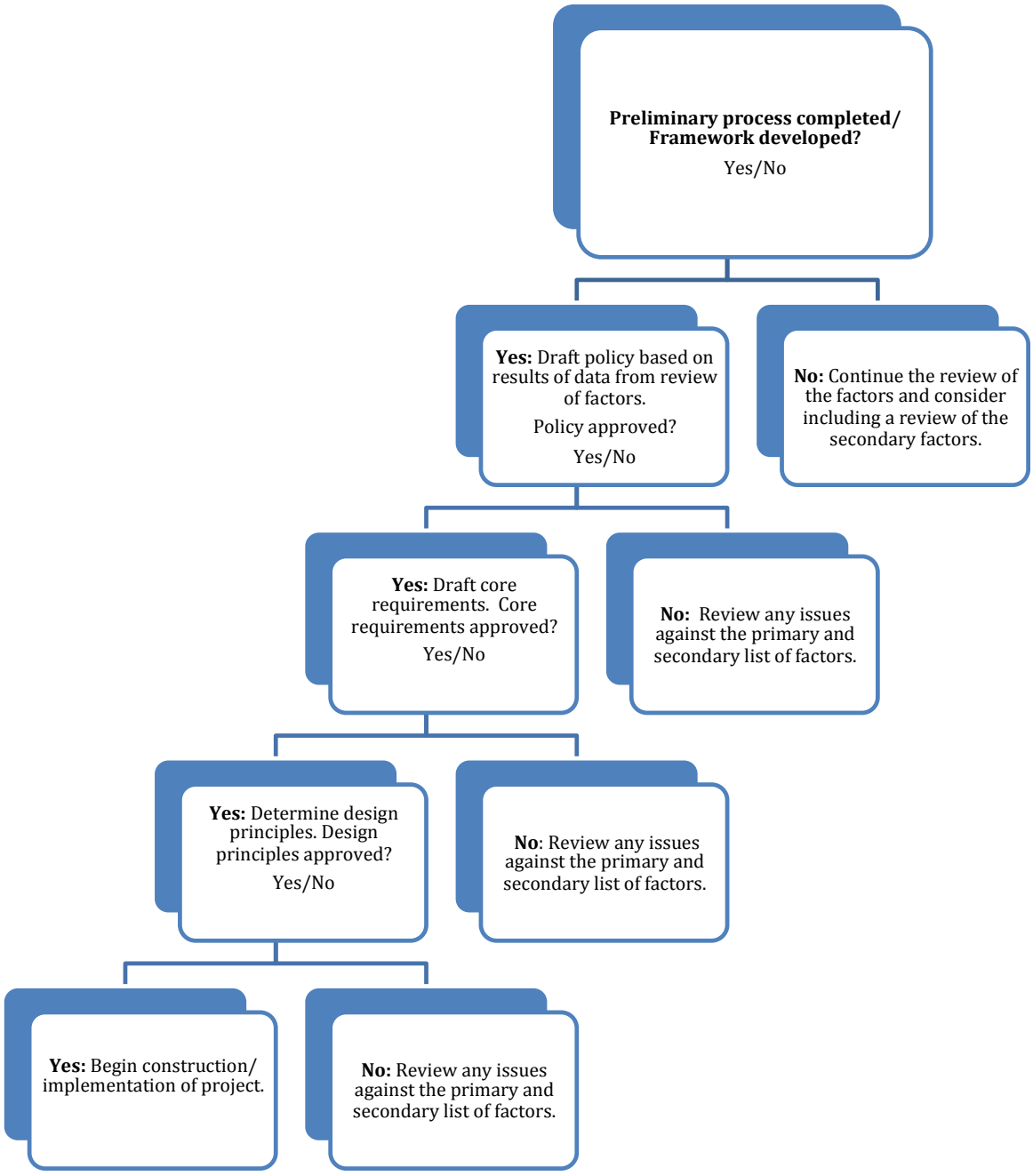

Figure 13. Basic Regional Transportation Collaboration Model - Section 3

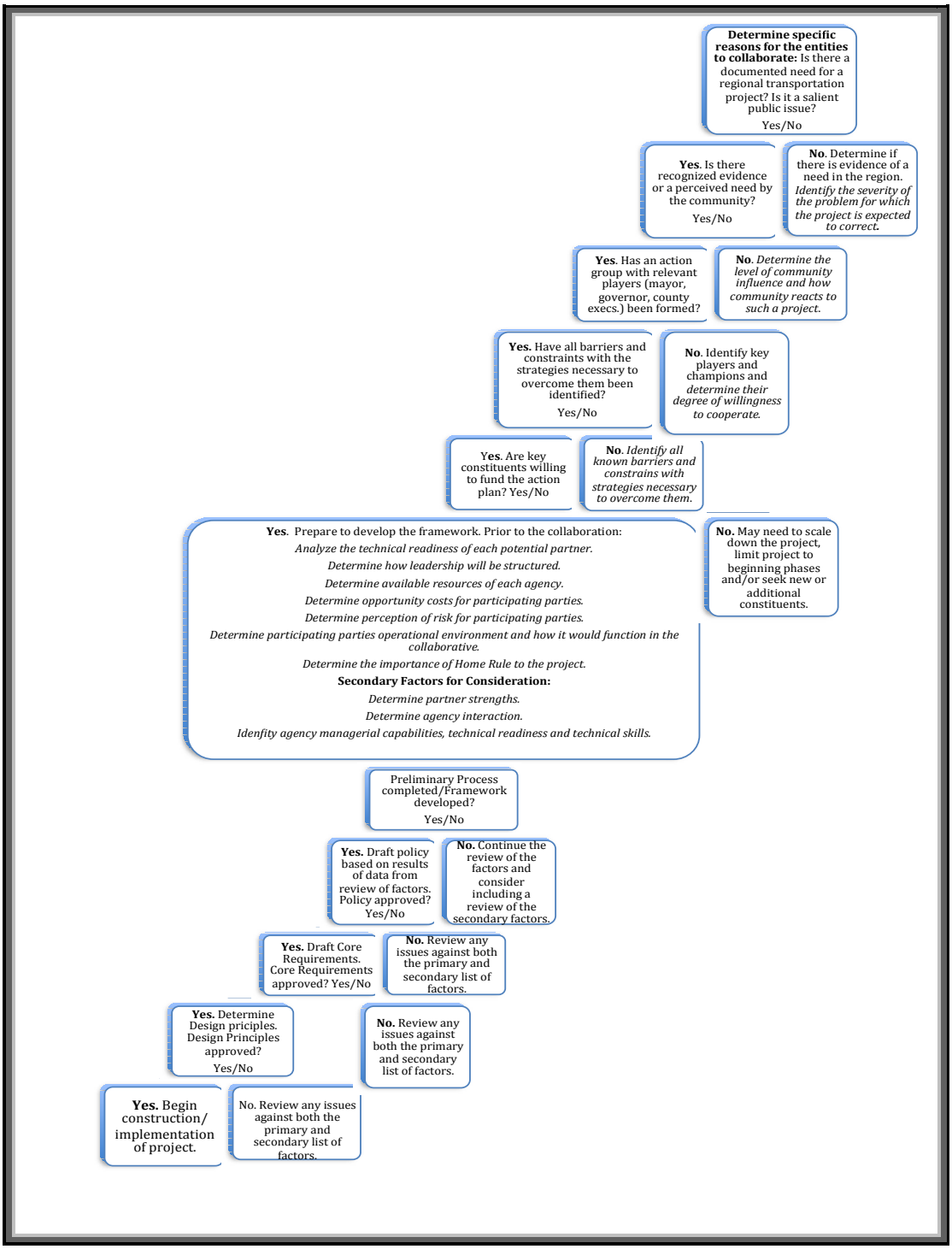

Figure 14. Preliminary Process Using Factors for Collaborative Regional Transportation Development.

Regional Transit Authority Model – Section 1

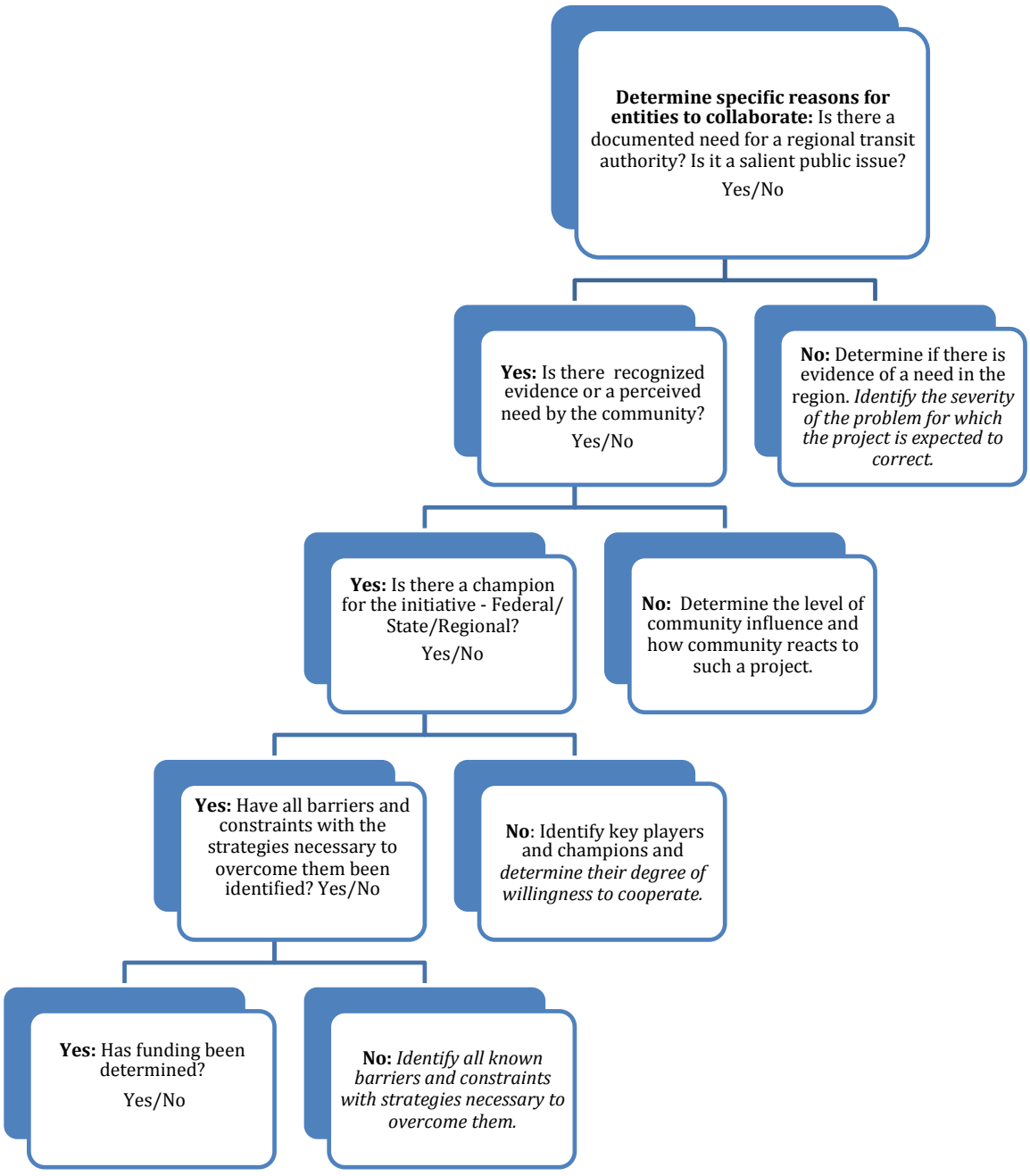

Figure 15. Regional Transit Authority Model - Section 1

Basic Regional Transit Authority Model – Section 2

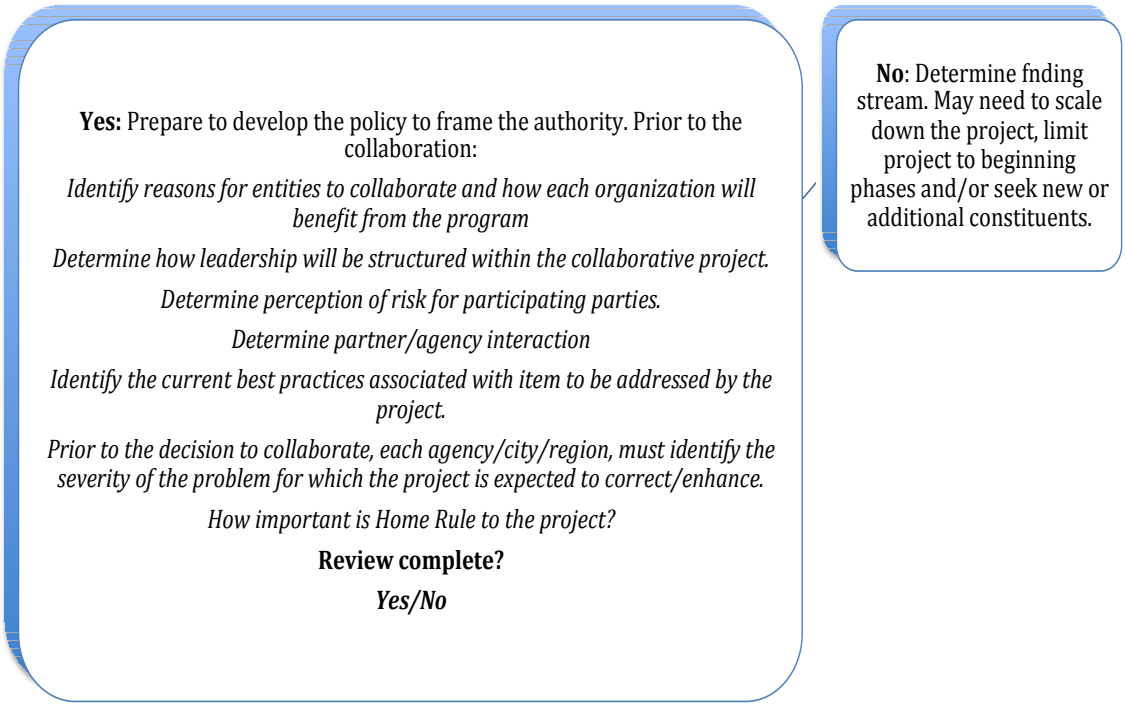

Figure 16. Regional Transit Authority Model - Section 2

Regional Transit Authority Model – Section 3

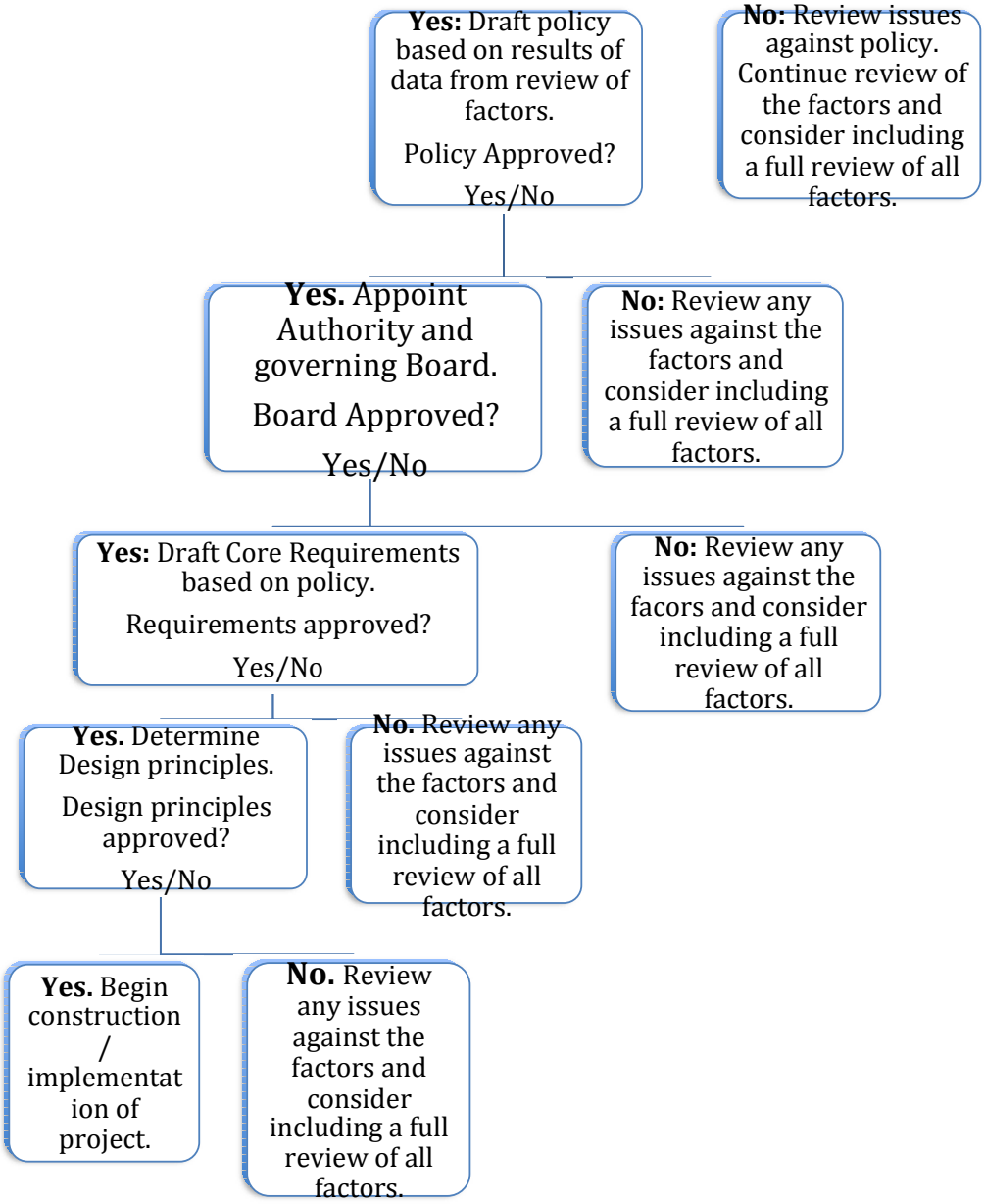

Figure 17. Regional Transit Authority Model - Section 3

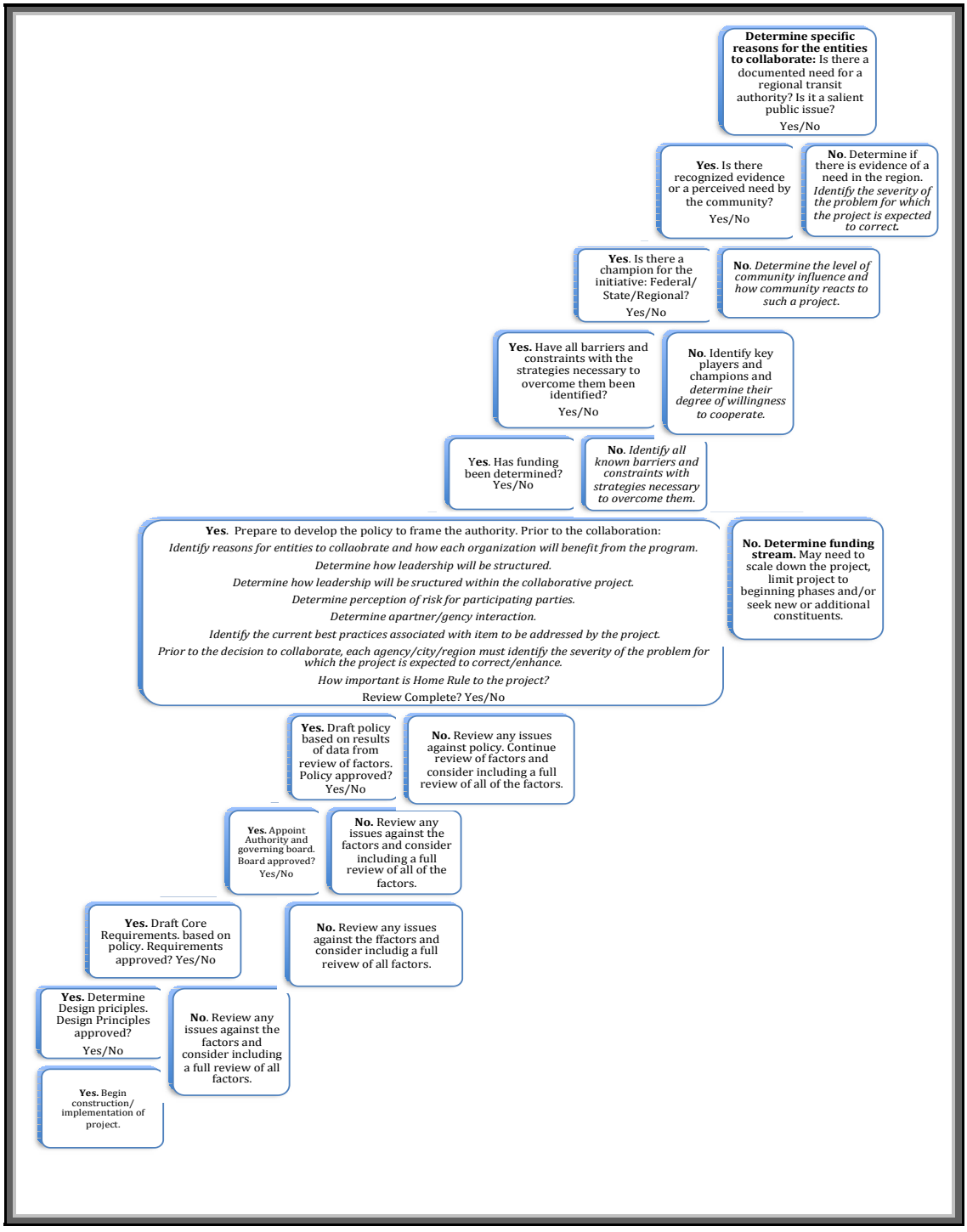

Figure 18. Preliminary Process for Regional Transportation Delivered via a RTA.

Implications of the Results

Many revelations were encountered during this research project; one of which is that the factors identified in the literature review are relevant to regional mass transportation of a government nature. Considering that the intent of this research was to reveal, understand, learn, and enhance the subject matter, this project is a success. The implications from this project are discussed below.

Implications for creating Regional Transit Agencies utilizing factors as the foundation. Based on input from participating SMEs, where there is a Regional Authority, the consideration of building the authority based on "true" regional collaboration could be more useful and productive than creating an authority and hiring individuals to run it. At this time, the position of a regional authority is that government agencies in the region are "hands off" in its development, formation, and administration, and the local governments have no voice. Compliance to the authority is either mandatory or based on voluntary participation. Mandatory participation does not equate to having a voice and may not be a satisfactory solution for some agencies. With voluntary participation, the rate of those who agree could be less than desired. Building the authority based on basic collaborative guidelines could lead to a more successful regional project.

***Recommendation One*.** When building a regional authority, consider creating it similar to a traditional collaboration guidelines and factors as opposed to an independent agency.

Implications for creating a checklist using the factors. As indicated by the SMEs, the idea of using or incorporating the factors as a checklist is a good idea. Although specific factors are indicated as being useful to an RTA, a checklist that includes all of the factors would help to accommodate any project unique items. As such, it is recommended that the 18 factors studied in

this research effort (7 universal and 11 government specific) be incorporated in future regional transportation projects as a checklist during the preliminary stage of regional transportation projects involving government entities. This checklist will help to ensure better probability of a successful collaborative effort.

Recommendation Two. Regardless of the uniqueness of the project, critiquing it against all of the factors in a checklist is recommended.

Implications for the creation of a Regional Advisory Board representing local government. The ability to collaborate is essential to a successful future in government. Regional Transit Authorities appear to be the prevalent choice for the collaboration of regional projects for transportation and possibly other types of service such as water. As a process, RTAs and other regional projects warrant consideration of 1) how many single purpose agencies one region can have and 2) how these various regional agencies work toward the region's overall or common goals. Adding an additional layer to regional collaboration could help facilitate the goals for the region, contribute toward a greater degree of success, and ensure input from local government. This new layer would create a regional board consisting of local representation. The regional board should be tasked with viewing everything from a regional aspect and working with all regional authorities on collaborations in the area. Such a board would be very beneficial to the region as it would keep regional projects aligned with the region's goals, constantly consider the needs and uniqueness of local government, ensure all regional authorities stay on task regarding regional goals, and provide local government a voice.

According to the survey data, regional collaborations would benefit from including local representation input in their decisions. It was also noted that the best method for doing so would be to create a regional board consisting of local representatives. This would allow the process of

local representation on regional matters in a consistent and responsible manner. Additionally, an advisory board could help to eliminate the "Black Box Decision Making" identified by Flitcroft (2011) as it pertains to regional policy decisions.

Recommendation Three. Create a regional advisory board representing local governments. These individuals will bring a local voice to the regional table for all regional matters and keep regional authorities focused on regional goals.

Implications for working with a membership-oriented organization specific to the subject matter of the research when using a Delphi research method. Based on the experience of this research project, the researcher recommends distributing survey information to the industry at large when using the Delphi research methodology, preferably via a regional or membership-oriented agency or association specific to the subject matter, and composing a panel in that manner as opposed to a random selection of a panel of experts. A membership-driven organization usually has opportunities where subject matter experts convene in one spot at one time, thereby ensuring adequate and timely participation. Contacting the organization during the development stage could increase the probability for support and success.

Recommendation Four. When using the Delphi methodology, consider working with a membership-oriented organization specific to your research study.

Implication for creating policy to institute a Regional Advisory Board. Regional Authorities should actively engage local representation of the entities within the area they serve. Creating a policy for a regional organization that actually represents the various entities and strictly focuses on regional concerns as a whole could help to guide all area regional authorities (light, transportation, water, etc.) while ensuring local voices and concerns are heard and all agencies are focused on regional goals.

Policy Recommendation One. Institute a policy for the creation of a Regional Advisory Board consisting of local representation.

Implications for creating policy to use factors to develop policy for future RTAs. In general, there was agreement that the collaborative factors were useful in the field of regional transportation of government entities. However, the majority of these types of scenarios are categorized as an RTA. Further analysis of the factors and their relationship to an RTA supports the idea that these factors are not necessarily being used in today's environment; however, there was majority agreement that they should be.

How the factors are used in an RTA could differ slightly in manner or at a different stage in the process. Where a traditional collaboration would work on the factors during the preliminary analysis phase, an RTA would more likely incorporate the factors in the policy development stage. Once the policy is developed, the newly appointed RTA committee/administration/management would go forward based on the policy.

For this research, the factors are considered relevant to collaboration of regional transportation projects administered by government agencies. The recommendation of the panel is that they be used as a checkpoint to develop the collaboration or RTA. For an RTA, the recommendation is to use the factors in the policy development phase of the RTA collaborative.

Policy Recommendation Two. Use factors (previously identified as supportive to an RTA) in the policy development phase of creating a Regional Transportation Authority.

Recommendations for Future Study

Based on the difficulty in obtaining panel members, the researcher recommends that future research employ a membership-based organization particular to the research topic that could help form a framework for a potential panel at the start of the project. Such a future study

could further fine-tune the model and perhaps lead to effective ways to quantitatively gauge the degree of preparedness of a government agency for a collaborative endeavor.

It is also recommended that regional collaboration be addressed in various other contexts of government agencies. This research is specific to regional transportation of a governmental nature and only canvassed subject matter experts in that field. The factors identified in the literature review fell into two categories: 1) universal and 2) government-specific. The universal factors could be beneficial to all business in all industries, and the government-specific ones could be applicable to all types of government projects. These factors should be analyzed for applicability to multiple industries. This would help facilitate the creation of a solid collaboration model that would benefit all. Future research should analyze the factors for applicability in other types of businesses as well as other collaborations in other segments of government involving projects within and between other entities.

The factors presented to the panel were derived from various resources reviewed during the literature review phase of the study. They were combined as a model and presented to the panel as a collaboration success package in the survey. The survey analysis revealed that all of the factors were sanctioned by a panel majority as being applicable to regional mass transportation of a government nature.

With the completion of this research, the next step of the process is to replicate the study with a broader audience to further substantiate the research results. The goal is to perform subsequent research via a membership-based association. Data would be collected during the conference while there is a captive audience of knowledgeable participants. In addition to further research, dissemination of the information provided by this study to the appropriate entities is also planned. The goals are to (1) approach congress for presentation, (2) approach

membership based regional transportation associations such as the American Public Transportation Association (as well as local/state mass transportation associations) for presentation at annual conferences and to seek journal publication.

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APPENDICES

APPENDIX A: Top 12 U.S. Metropolitan Areas Ranked by 2000 Population

Rank	State	Metro Area	Population
1	**NY/NJ/PA**	**New York/Northern New Jersey/Long Island**	**18,323,002**
		• *Edison, NJ*	*2,173,869*
		• *Nassau-Suffolk, NY*	*2,753,913*
		• *Newark-Union, NJ-PS*	*2,098,843*
		• *New York-Wayne-White Plains, NY-NJ*	*11,296,377*
2	**California**	**Los Angeles/Long Beach/Santa Ana**	**12,365,627**
		• *Los Angeles-Long Beach-Glendale*	*9,519,338*
		• *Santa Ana-Anaheim-Irvine*	*2,846,289*
3	**IL/IN/WI**	**Chicago/Naperville-Joliet**	**9,098.316**
		• *Chicago-Naperville-Joliet , IL*	*7,628,412*
		• *Gary, IN*	*675,971*
		• *LakeCounty-Kenosha County, IL-WI*	*793,933*
4	**PA/NJ/DE**	**Philadelphia/Camden/Wilmington**	**5,687,147**
		• *Camden, NJ*	*1,186,999*
		• *Philadelphia, PA*	*3,849,647*
		• *Wilmington, DE-MD-NJ*	*650,501*
5	**Texas**	**Dallas/Fort Worth**	**5,161,544**
		• *Dallas-Plano-Irving*	*3,451,226*
		• *Fort Worth-Arlington*	*1,710,318*
6	**Florida**	**Miami/Fort Lauderdale/Miami Beach**	**5,007,567**
		• *Fort Lauderdale-Pompano Beach-Deerfield Beach*	*1,623,018*
		• *Miami-Miami Beach-Kendall*	*2,253,362*
		• *West Palm Beach-Boca Raton-Boynton Beach*	*1,131,184*
7	**DC/VA/MD**	**Washington/Arlington/Alexandria**	**4,796,183**
		• *Bethesda-Frederick-Gaithersburg, MD*	*1,068,618*
		• *Washington-Arlington-Alexandria*	*3,727,565*
8	**Texas**	**Houtson/Baytown/Sugar Land**	**4,715,407**
9	**Michigan**	**Detroit/Warren/Livonia**	**4,452,557**
		• *Detroit-Livonia-Dearborn*	*2,061,162*
		• *Warren-Farmington Hills-Troy*	*2,391,395*
10	**MA/NH**	**Boston/Cambridge/Quincy**	**4,391,344**
		• *Boston-Quincy, MA*	*1,812,937*
		• *Cambridge-Newton-Framington, MA*	*1,465,396*
		• *Essex Country, MA*	*723,419*
		• *Rockingham County-Strafford County, NH*	*389,592*
11	**Georgia**	**Atlanta/Sandy Springs/Marietta**	**4,247,981**
12	**California**	**San Francisco/Oakland/Fremont**	**4,123,740**
		• *Oakland-Fremont-Haywood*	*2,392,557*
		• *San Francisco-San Mateo-Redwood City*	*1,731,183*

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APPENDIX B: Expert Contact Organizations

Title	Agency	Contact Information
General Manager	Bay Area Regional Transit	San Francisco Bay Area Rapid Transit District (BART)P.O. Box 12688Oakland, CA 94604-2688 (510) 464-6060
Director	Bay Area Regional Transit	Phone: (510) 464-6095 Fax: (510) 464-6011 Email: boardofdirectors@bart.gov
Commission Chairman	Central Florida Commuter Rail Commission Governing Board	Altamonte Springs City Hall Commission Chambers 225 Newburyport Avenue Altamonte Springs, Florida 32701
Executive Vice President, Growth and Regional Development	Dallas Area Rapid Transit	Dallas Area Rapid TransitP.O. Box 660163Dallas, Texas 75266-0163 or Dallas Area Rapid Transit1401 Pacific Ave.Dallas, Texas 75202
Board of Directors	Dallas Area Rapid Transit	DART Office of Board Support P.O. Box 660163 Dallas, Texas 75266-7200
Director	DC District Department of Transportation	55 M Street, SE, Suite 400 Washington, DC 20003 ddot@dc.gov
Secretary of the Florida Department of Transportation	Florida Department of Transportation	Department of Transportation 605 Suwannee Street Tallahassee, Florida 32399-0450 Telephone: 850-414-4100

Title	Agency	Contact Information
Executive Director	Georgia Regional Transportation Authority & Governor's Development Council	245 Peachtree Center Ave, NE, Suite 800, Atlanta, GA 30303, (404) 463-3000
Chief Executive Officer, General Manager/Secretary-Treasurer, Board Member and Chairman	Greater Cleveland Regional Transit Authority – Board of Trustees – Citizens Advisory Board	1240 West 6th Street | Cleveland, Ohio 44113-1302 | 216-566-5100
General Manager/Chief Executive Officer / Board of Directors	Metropolitan Atlanta Rapid Transit Authority	MARTA□ATTN: Department/Name□2424 Piedmont Road, NE□Atlanta, GA 30324-3311 510.817.5810
Council Member District 3	Metropolitan Transportation Commission	San José City Hall□200 East Santa Clara St.□San José, CA 95113□District3@sanjoseca.gov □408/535-4903
	Sunrail	SunRail City Center, located at 201 N. Magnolia Avenue, Suite 101 in downtown Orlando or call the Center at 407-487-4035.
Secretary of Transportation	U.S. Department of Transportation	□1200 New Jersey Ave, SE□ Washington, DC 20590□ 202-366-4000
General Manager and Chief Executive Officer/Board of Directors/regional representatives and appointees	Washington Metro Area Transit.	Washington Metropolitan Area Transit Authority□600 5th Street, NW□Washington, DC 20001

APPENDIX C: Panel Participant Consent Form

Panel Participant Consent Form

Determining the Degree of Collaboration Readiness for Regional Transportation Systems: The Formulation of a Model

Please consider this information carefully before deciding whether to participate in this research.

Purpose of the dissertation research: To understand the collaboration experiences of politicians, public agency management and regional transportation managers in working on a regional transportation project.

What you will do in this research: If you decide to volunteer, you will be asked to complete an member information form and participate in two Internet administered surveys. In each survey, you will be asked to (1) provide a rating of the information presented based on your experience with regional or metropolitan transportation projects, (2) add information as you determine it is essential to the project and (3) add comments regarding the research project as it is determined beneficial.

The first survey will be comprised of four sections: (1) Applicability of collaboration readiness model, (2) Universal collaboration factors, (3) government specific collaboration factors, and (4) Panel member specific recommendations and comments based on your experience. Survey two will allow you to see the panel results of survey one. You will be asked to review and comment on the summary of panel results.

Time required: Each survey is expected to take approximately 1 hour for a total of 2 hours.

Risks: There are no known risks associated with project participation. The project will be conducted keeping panel member information and responses confidential. Upon completion, panel members will have the option of having their name included as an expert in the final research results.

Benefits: This is your opportunity to contribute toward a tool, based on your experience and knowledge, which will assist government entities in future collaborative endeavors. Your name can be included as a subject matter expert participant supporting the research. However, all participants have the option of confidentiality and can request exclusion from identification.

Compensation: All participants completing all three sections of the research will be eligible for a gift card as a thank you for your support.

Confidentiality: Your responses to the surveys will be kept confidential. At no time will your actual identity be revealed during the research process. You will be assigned a personal code that is known only to you and the researcher. The survey results, without your name, will be kept until the research is complete.

The key code linking your name and organization with your number will be kept in a locked file and no one else will have access to it. It will be destroyed once the dissertation has been accepted by the university. The data you provide will be used in the research project for analysis and may be used as the basis for articles or presentation in the future. Your name will not be used nor information that would identify you in any publications or presentations. Reported data and findings will be aggregated and generalized. Upon request from you, your name can be included as a subject matter expert participant supporting the research.

Participation and withdrawal: Your participation in this study is voluntary, and you may refuse to participate without penalty. You may withdraw by informing the experimenter that you no longer wish to participate (no questions will be asked).

To Contact the Researcher: If you have questions or concerns about this research, please contact Carol Farver, Phone: 313-535-1054. Email: cfarver@emich.edu. You may also contact the faculty member supervising this work: Dr. John Dugger, professor, Eastern Michigan University, Ypsilanti, Michigan, 48197, Phone number: 734 – 274-1630 (cell) or 734-487-1832 (office), and email at jdugger@emich.edu .

Whom to contact about your rights in this research, for questions, concerns, suggestions, or complaints that are not being addressed by the researcher, or research-related harm: Committee on the Use of Human Subjects in Research at Eastern Michigan University, copy to the UHSRC, 200 Boone Hall, EMU, Ypsilanti, MI 48197. Phone: 734-487-0042 Email: human.subject@emich.edu.

Agreement:

The nature and purpose of this research have been sufficiently explained and I agree to participate in this study. I understand that I am free to withdraw at any time without incurring any penalty.

Click on the link to begin the survey. Connecting to the survey is your agreement or consent to participate in the study. Thank you.

****

This research protocol and informed consent document has been reviewed and approved by the Eastern Michigan University Human Subjects Review Committee (UHSR for use from _____ to _____. If you have questions about the approval process, please contact the UHSRC at human.subjects@emich.edu or call 734-487-0042.

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APPENDIX D: Survey One

Determining the Degree of Collaboration Readiness for Regional Transportation Systems: The Formulation of a Model

Default Question Block

Panel participation Informed Consent Form

Please consider this information carefully before deciding whether to participate in this research.

Purpose of the dissertation research: To understand the collaboration experiences of politicians, public agency management and regional transportation managers in working on a regional transportation project.

What you will do in this research: If you decide to volunteer, you will be asked to complete an member information form and participate in two Internet administered surveys. In each survey, you will be asked to (1) provide a rating of the information presented based on your experience with regional or metropolitan transportation projects, (2) add information as you determine it is essential to the project and (3) add comments regarding the research project as it is determined beneficial.
The first survey will be comprised of four sections: (1) Applicability of collaboration readiness model, (2) Universal collaboration factors, (3) government specific collaboration factors, and (4) Panel member specific recommendations and comments based on your experience. Survey two will allow you to see the panel results of survey one. You will be asked to review and comment on the summary of panel results.

Time required: Each survey is expected to take approximately 30 minutes for a total of 1 hour.

Risks: There are no known risks associated with project participation. The project will be conducted keeping panel member information and responses confidential. Upon completion, panel members will have the option of having their name included as an expert in the final research results.

Benefits: This is your opportunity to contribute toward a tool, based on your experience and knowledge, which will assist government entities in future collaborative endeavors. Your name can be included as a subject matter expert participant supporting the research. However, all participants have the option of confidentiality and can request exclusion from identification.

Compensation: All participants completing all three sections of the research will be eligible for a gift card as a thank you for your support.

Confidentiality: Your responses to the surveys will be kept confidential. At no time will your actual identity be revealed during the research process. You will be assigned a personal code that is known only to you and the researcher. The survey results, without your name, will be kept until the research is complete.

The key code linking your name and organization with your number will be kept in a locked file and no one else will have access to it. It will be destroyed once the dissertation has been accepted by the university. The data you provide will be used in the research project for analysis and may be used as the basis for articles or presentation in the future. Your name will not be used nor information that would identify you in any publications or presentations. Reported data and findings will be aggregated and generalized. Upon request from you, your name can be included as a subject matter expert participant supporting the research.

Participation and withdrawal: Your participation in this study is voluntary, and you may refuse to participate without penalty. You may withdraw by informing the experimenter that you no longer wish to participate (no questions will be asked).

To Contact the Researcher: If you have questions or concerns about this research, please contact Carol Farver, Phone: 313-535-1054. Email: cfarver@emich.edu. You may also contact the faculty member supervising this work: Dr. John Dugger, professor, Eastern Michigan University, Ypsilanti, Michigan, 48197, Phone number: 734 – 274-1630 (cell) or 734-487-1832 (office), and email at jdugger@emich.edu .

Whom to contact about your rights in this research, for questions, concerns, suggestions, or complaints that are not being addressed by the researcher, or research-related harm: Committee on the Use of Human Subjects in Research at Eastern Michigan University, copy to the UHSRC, 200 Boone Hall, EMU, Ypsilanti, MI 48197. Phone: 734-487-0042 Email: human.subject@emich.edu.

Agreement:
The nature and purpose of this research have been sufficiently explained and I agree to participate in this study. I understand that I am free to withdraw at any time without incurring any penalty.

Please provide your agreement or consent to participate in the study by selecting the "yes" button below.

********** **********

This research protocol and informed consent document has been reviewed and approved by the Eastern Michigan University Human Subjects Review Committee (UHSR for use from June 22, 2013 to June 22, 2014. If you have questions about the approval process, please contact the UHSRC at *human.subjects@emich.edu* ***or call 734-487-0042.***

********** **********

I have read, understood, and printed a copy of, the above consent form and desire of my own free will to participate in this study.

- ◯ Yes
- ◯ No

Please provide your assigned Panel Member ID number:

Your panel member ID for project participation should be entered as follows – First initial, middle initial (or X), last initial, and organizational acronym (Example - Sam Johnson working at Washington Metropolitan Area Transit Authority is entered as "SXJWMATA") and indicated on ALL surveys in the exact same format.

In this survey, you will rate success factors that were identified during the research of projects of a collaborative nature. These factors were noted as being significant to the success of a collaborative project involving two or more entities, agencies or organizations. They are presented in two different categories: universal and government specific. Reflecting on your experience and background working with collaborative projects, rate each factor for your perceived usefulness to the success of a collaborative project. The ranking scale is as follows:

0 = no usefulness

1 = some usefulness
2 = useful with modifications
3 = very useful
4 = critical to project success.

SECTION A: Universal Collaboration Success factors (applicable to any collaborative project; whether government or non-government or a combination).

For each factor, please provide a brief comment explaining why it received the value presented. The first set of factors are identified as being universal and are indicated below:

Collaborative Factor One: Determine specific reasons for the entities to collaborate. How will each organization benefit form the project?

Zero	1	2	3	4
○	○	○	○	○

Reason for your rating of collaborative Factor One:

Collaborative Factor Two: Identify all known barriers and constraints specific to the collaborative effort. What could block the success of this effort?

Zero	1	2	3	4
○	○	○	○	○

Reason for your rating of collaborative Factor Two:

Collaborative Factor Three: Determine partner strengths and weaknesses. What does each agency bring as a strength and what are the organization weaknesses?

Zero	1	2	3	4
○	○	○	○	○

Reason for your rating of collaborative Factor Three:

Collaborative Factor Four: Determine partner organization/agency interaction. At what points/activity, will they collaborate or share data and at what activities will be specific to a particular agency?

Zero	1	2	3	4
○	○	○	○	○

Reason for your rating of collaborative Factor Four:

Collaborative Factor Five: Analyze the technical readiness of each potential partner.

Zero	1	2	3	4
○	○	○	○	○

Reason for your rating of collaborative Factor Five:

Collaborative Factor Six: Determine how leadership will be structured within the collaborative project. Will it be shared or will one agency lead the venture?

Zero	1	2	3	4

Reason for your rating of collaborative Factor Six:

Collaborative Factor Seven: Identify the current best practices associated with item to be addressed by the project. Within th e industry, are there identified "best practices"?

Zero	1	2	3	4

Reason for your rating of collaborative Factor Seven:

Please rank the following seven universal collaborative success factors in order of importance based on your experience.. Please drag and drop the items into your ranking order. NOTE: They are in no particular order.

Determine specific reasons for the entities to collaborate.

Identify all known barriers and constraints specific to the collaborative ef fort.

Determine partner strengths and weaknesses.

Determine partner interaction.

Analyze the technical readiness of each potential partner .

Determine how leadership will be structured within the collaborative project.

Identify the current best practices associated with subject to be addressed by the project.

Now that you have had an opportunity to review and rate each of the universal collaboration success factors, what is your rating of the usefulness of the concept of "collaboration success factors" as presented in general? Please provide an overall

ranking using the values of zero to four.

0 = no usefulness
1 = some usefulness
2 = useful with modifications
3 = very useful
4 = critical to project success

Zero	1	2	3	4
○	○	○	○	○

Reason for your rating of the concept of collaboration success factors:

SECTION B - Government Collaboration Success factors: Reflecting on your experience and background working with government specific collaborative projects, rate each factor for your perceived usefulness to the success of a collaborative project. The ranking scaled is as follows:

0 = no usefulness
1 = some usefulness
2 = useful with modifications
3 = very useful
4 = critical to project success.

For each factor, please provide a brief comment explaining why it received the value presented.

Government Success Factor One: Is the collaboration based on a salient public issue for each participating agency?

Zero	1	2	3	4
○	○	○	○	○

Reason for your rating of Government Success Factor One:

Government Success Factor Two: Prior to collaboration, determine available resources of each agency.

Zero	1	2	3	4
○	○	○	○	○

Reason for your rating of Government Success Factor Two:

Government Success Factor Three: Prior to the decision to collaborate, each agency/region/city needs to determine their opportunity to costs for participating in the project.

Zero	1	2	3	4
○	○	○	○	○

Reason for your rating of Government Success Factor Three:

Government Success Factor Four: Each agency/region/city must determine the perception of risk in participating in the project.

Zero	1	2	3	4
○	○	○	○	○

Reason for your rating of Government Success Factor Four:

Government Success Factor Five: Prior to the decision to collaborate, determine the level of community influence for each agency/region/city and how the community reacts to the project.

Click to write Choice 1	Click to write Choice 2	Click to write Choice 3	Click to write Choice 4	Click to write Choice 5
○	○	○	○	○

Reason for your rating of Government Success Factor Five:

Government Success Factor Six: Each agency/city/region must determine their type of operation environment and how it work function in a collaborative project.

Zero	1	2	3	4
○	○	○	○	○

Reason for your rating of Government Success Factor Six:

Government Success Factor Seven: Prior to the decision to collaborate, each agency/city/region must identify the severity of the problem for which the project is expected to correct/enhance.

Zero	1	2	3	4
○	○	○	○	○

Reason for your rating of Government Success Factor Seven:

Government Success Factor Eight: Prior to the decision to collaborate, each agency/city/region must identify it's managerial capabilities and strength (weak, strong, etc.) as it relates to the project or project purpose.

Zero	1	2	3	4

Reason for your rating of Government Success Factor Eight:

Government Success Factor Nine: Prior to the decision to collaborate, each agency/city/region must identify their technical capabilities and strength as it relates to the project or project purpose.

Zero	1	2	3	4

Reason for your rating of Government Success Factor Nine:

Government Success Factor Ten: Prior to the decision to collaborate, each agency/city/region must identify the technical skill of the entity in their organization who will manage the effort as the agency representative.

Zero	1	2	3	4

Reason for your rating of Government Success Factor Ten:

Government Success Factor Eleven: How important is Home Rule to the collaboration of multiple government agencies? Is it a factor in the decision to collaborate? Will it impact how the agency determines to build the collaboration?

Zero	1	2	3	4

Reason for your rating of Government Success Factor Eleven:

Please rank the following government specific collaborative success factors in order of importance (based on your experience). Please drag and drop the items into your ranking order. NOTE: They are in no particular order.

Is the collaboration based on a salient public issue?

Determine available resources of each agency.

Each agency/region/city needs to determine their opportunity to costs for participating in the project.

Each agency/region/city must determine the perception of risk in participating in the project.

Determine the level of community influence for each agency/region/city and how the community reacts to the project.

Each agency/city/region must determine their type of operation environment and how it work function in the collaboration.

Each agency/city/region must identify the severity of the problem for which the project is expected to correct/enhance.

Each agency/city/region must identify the managerial capabilities and strength.

Each agency/city/region must identify their technical capabilities and strength.

Each agency/city/region must identify the technical skill of the entity in their organization who will manage the effort.

Home Rule.

SECTION C: Comprehensive rating of ALL success Factors presented.

When considering both the universal and government specific collaborative factors presented, how would you rate the importance of each of the factors. Please rate the individual factors among both universal and government specific collaboration factors in order of perceived importance. Please drag and drop the items into your ranking order. NOTE: They are in no particular order.

Determine specific reasons for the entities to collaborate.

Identify all known barriers and constraints specific to the collaborative effort.

Identify all known barriers and constraints specific to the collaborative effort.

Determine partner interaction.
Analyze the technical readiness of each potential partner.
Determine how leadership will be structured within the collaborative project.
Identify the current best practices associated with item to be addressed by the project.
Is the collaboration based on a salient public issue?
Determine available resources of each agency.
Each agency/region/city needs to determine their opportunity to costs for participating in the project.
Each agency/region/city must determine the perception of risk in participating in the project.
Determine the level of community influence for each agency/region/city and how the community reacts to the project.
Each agency/city/region must determine their type of operation environment and how it work function in the collaboration.
Each agency/city/region must identify the severity of the problem for which the project is expected to correct/enhance.
Each agency/city/region must identify the managerial capabilities and strength
Each agency/city/region must identify their technical capabilities and strength.
Each agency/city/region must identify the technical skill of the entity in their organization who will manage the effort.Item
Home Rule.

Please provide rational for the three highest ratings and the three lowest ratings.

SECTION D- Please indicate any recommendation of factors not listed but in which you consider to be critical to success of a collaborative project. Please also provide rational/purpose of the presented collaborative success factor.

(1) Factor and rationale:

(2) Factor and rationale:

(3) Factor and rationale:

APPENDIX E: Survey Two

Determining the Degree of Collaboration Readiness for Regional Transportation Systems: The Formulation of a Model

Default Question Block

Panel participation Informed Consent Form

Please consider this information carefully before deciding whether to participate in this research.

Purpose of the dissertation research: To understand the collaboration experiences of politicians, public agency management and regional transportation managers in working on a regional transportation project.

What you will do in this research: If you decide to volunteer, you will be asked to participate in this Internet administered survey. In this survey, you will be asked to (1) provide a rating of the information presented based on your experience with regional or metropolitan transportation projects, (2) add information as you determine it is essential to the project and (3) add comments regarding the research project as it is determined beneficial.

Time required: This survey is expected to take approximately 45 minutes.

Risks: There are no known risks associated with project participation. The project will be conducted keeping panel member information and responses confidential. Upon completion, panel members will have the option of having their name included as an expert in the final research results.

Benefits: This is your opportunity to contribute toward a tool, based on your experience and knowledge, which will assist government entities in future collaborative endeavors. Your name can be included as a subject matter expert participant supporting the research. However, all participants have the option of confidentiality and can request exclusion from identification.

Compensation: All participants completing all four sections of the research will be eligible for a gift card as a thank you for your support.

Confidentiality: Your responses to the surveys will be kept confidential. At no time will your actual identity be revealed during the research process. You will be assigned a personal code that is known only to you and the researcher. The survey results, without your name, will be kept until the research is complete.

The key code linking your name and organization with your number will be kept in a locked file and no one else will have access to it. It will be destroyed once the dissertation has been accepted by the university. The data you provide will be used in the research project for analysis and may be used as the basis for articles or presentation in the future. Your name will not be used nor information that would identify you in any publications or presentations. Reported data and findings will be aggregated and generalized. Upon request from you, your name can be included as a subject matter expert participant supporting the research.

Participation and withdrawal: Your participation in this study is voluntary, and you may refuse to participate without penalty. You may withdraw by informing the experimenter that you no longer wish to participate (no questions will be asked).

To Contact the Researcher: If you have questions or concerns about this research, please contact Carol Farver, Phone: 313-535-1054. Email: cfarver@emich.edu. You may also contact the faculty member supervising this work: Dr. John Dugger, professor, Eastern Michigan University, Ypsilanti, Michigan, 48197, Phone number: 734 – 274-1630 (cell) or 734-487-1832 (office), and email at jdugger@emich.edu .

Whom to contact about your rights in this research, for questions, concerns, suggestions, or complaints that are not being addressed by the researcher, or research-related harm: Committee on the Use of Human Subjects in Research at Eastern Michigan University, copy to the UHSRC, 200 Boone Hall, EMU, Ypsilanti, MI 48197. Phone: 734-487-0042 Email: human.subject@emich.edu.

Agreement:
The nature and purpose of this research have been sufficiently explained and I agree to participate in this study. I understand that I am free to withdraw at any time without incurring any penalty.

Please provide your agreement or consent to participate in the study by selecting the "yes" button below.

********** **********

This research protocol and informed consent document has been reviewed and approved by the Eastern Michigan University Human Subjects Review Committee (UHSR for use from June 22, 2013 to June 22, 2014. If you have questions about the approval process, please contact the UHSRC at** *human.subjects@emich.edu* ***or call 734-487-0042.

********** **********

I have read, understood, and printed a copy of, the above consent form and desire of my own free will to participate in this study.

Yes ○ No ○

Please provide your assigned Panel Member ID number:

Your panel member ID for project participation should be entered as follows – First initial, middle initial (or X), last initial, and organizational acronym (Example - Sam Johnson working at Washington Metropolitan Area Transit Authority is entered as "SXJWMATA") and indicated on ALL surveys in the exact same format.

As noted in the email, there was 100% agreement that the factors – both universal and government specific – were useful. However, the degree of usefulness varied (critical to useful with modifications) on most all of the factors. Very few factors received a majority vote in any particular rating category. Where the collaborative effort is administered via a regional authority, collaborative factors were the least useful and required the most modifications if there was any applicability. None of the universal factors were noted as being “very useful” to a regional authority type of collaboration.

Regional Transit Authorities were noted as being unique. Where there is a regional authority it is the result of a majority public vote. Once the authority is in place, the collaboration appears to be structured similar to an agency as there is no regional agreement. An entity either joins the Regional Authority and becomes a member or is a non-participating party.

This survey is comprised of four sections.

SECTION ONE - Summarizes the survey results and provides an opportunity for you to agree or disagree.
SECTION TWO - Addresses information pertinent to regional transit authorities as identified in the survey and seeks your input.
SECTION THREE - Provides factor specific information and seeks your final opinion.
SECTION FOUR - Provides a final opportunity for you to comment "free form" on the entire Collaborative Transportation Survey analysis data.

********** *********

This section looks at the overall results of survey one. It seeks to confirm your agreement/disagreement with the results and provides an opportunity for you to comment.

SECTION ONE - SURVEY ONE SUMMARY CONFIRMATION QUESTIONS

Question One: Do you agree with the following: both universal and government specific factors are useful. However, if it is utilized in regional transportation, modifications specific to the industry may be required?

Agree ○ Disagree ○

Question Two: If a factor requires modification, what type of modification would you recommend?

- ○ Specific to how the collaboration project is organized and run.
- ○ Specific to the region.
- ○ Specific to the governing board.
- ○ Specific to the organizations task (i.e. regional transportation).
- ○ All of the above.
- ○ None of the above.
- ○ Other.

Question Three: If you selected "other" in question two, please indicate your reason below. Otherwise, indicate N/A.

Question Four: What type of regional transportation system do you have in your area?

Regional Collaboration ○ Regional Authority ○ Other ○

Question Five: If you answered "other" to question four, please explain the type of regional transportation system in your area. Otherwise, enter N/A.

Question Six: How successful do you rate your regional transportation system?

Excellent ○ Very Good ○ Good ○ Fair ○ Needs Improvement ○

Question Seven: Where the collaborative effort is administered via a regional authority, collaborative factors are the least useful and require the most modifications if there is any applicability. Do you agree?

Agree ○ Disagree ○ Do Not Know ○

Question Eight: Of the following, which factors are you aware of for which your agency has or currently practices? Please select all that apply.

- ☐ Determine specific reasons for entities to collaborate. How will each organization benefit from the program?
- ☐ Identify known factors and barriers specific to the collaboration.
- ☐ Determining partner strengths and weaknesses
- ☐ Determine partner organization/agency interaction.
- ☐ Analyze the technical readiness of each potential partner.
- ☐ Determine how leadership will be structured within the collaborative project.
- ☐ Identify the current best practices associated with item to be addressed by the project.
- ☐ Is the collaboration based on a salient public issue for each participating agency?
- ☐ Prior to collaboration, determine available resources of each agency.
- ☐ Prior to the decision to collaborate, each agency/region/city needs to determine their opportunity costs for

participating in the project.

- [ ] Each agency/region/city must determine the perception of risk in participating in the project.
- [ ] Prior to the decision to collaborate, determine the level of community influence for each agency/region/city and how the community reacts to the project.
- [ ] Each agency/city/region must determine their type of operational environment and how it would function in a collaborative project.
- [ ] Prior to the decision to collaborate, each agency/city/region must identify the severity of the problem for which the project is expected to correct/enhance.
- [ ] Prior to the decision to collaborate, each agency/city/region must identify its managerial capabilities and strength (weak, strong, etc.) as it relates to the project or project purpose.
- [ ] Prior to the decision to collaborate, each agency/city/region must identify their technical capabilities and strength as it relates to the project or project purpose.
- [ ] Prior to the decision to collaborate, each agency/city/region must identify the technical skill of the entities within the organization that will manage the effort as the agency representative.
- [ ] How important is Home Rule to the collaboration of multiple government agencies? Is it a factor in the decision to collaborate? Will it impact how the agency determines to build the collaboration?

Question Nine: Of the following factors, which ones are you NOT currently practicing and you could have possibly benefited if it had been instated? Please select all that apply.

- [ ] Determine specific reasons for entities to collaborate. How will each organization benefit from the program?
- [ ] Identify known factors and barriers specific to the collaboration.
- [ ] Determining partner strengths and weaknesses
- [ ] Determine partner organization/agency interaction.
- [ ] Analyze the technical readiness of each potential partner .
- [ ] Determine how leadership will be structured within the collaborative project.
- [ ] Identify the current best practices associated with item to be addressed by the project.
- [ ] Is the collaboration based on a salient public issue for each participating agency?
- [ ] Prior to collaboration, determine available resources of each agency .
- [ ] Prior to the decision to collaborate, each agency/region/city needs to determine their opportunity costs for participating in the project.
- [ ] Each agency/region/city must determine the perception of risk in participating in the project.
- [ ] Prior to the decision to collaborate, determine the level of community influence for each agency/region/city and how the community reacts to the project.
- [ ] Each agency/city/region must determine their type of operational environment and how it would function in a collaborative project.
- [ ] Prior to the decision to collaborate, each agency/city/region must identify the severity of the problem for which the project is expected to correct/enhance.
- [ ]

- [ ] Prior to the decision to collaborate, each agency/city/region must identify its managerial capabilities and strength (weak, strong, etc.) as it relates to the project or project purpose.
- [ ] Prior to the decision to collaborate, each agency/city/region must identify their technical capabilities and strength as it relates to the project or project purpose.
- [ ] Prior to the decision to collaborate, each agency/city/region must identify the technical skill of the entities within the organization that will manage the effort as the agency representative.
- [ ] How important is Home Rule to the collaboration of multiple government agencies? Is it a factor in the decision to collaborate? Will it impact how the agency determines to build the collaboration?

Question Ten: Should the following factor be considered when determining collaborative readiness for regional transportation? - Determine an agency's willingness to cooperate ?

Yes ○ No ○

Question Eleven: If you answered yes to question ten, how can an agency's willingness to cooperate with a regional collaboration be gauged? Otherwise, enter N/A.

Question Twelve: In the field of regional transportation, are there clear industry standards?

Yes ○ No ○

Question Thirteen: If answered yes to question twelve (clear industry standards) what is your perception of these standards?

Excellent ○ Very Good ○ Good ○ Fair ○ Needs Improvement ○

Question Fourteen: In a regional collaborative effort, how important are jurisdictional agreements?

Very Important | Important | Somewhat Important | Not Important

Question Fifteen: In a regional collaborative effort, how important are local legislation/policy?

Very Important | Important | Somewhat Important | Not Important

Question Sixteen: In a regional collaborative effort, how important are state policies?

Very Important | Important | Somewhat Important | Not Important

Question Seventeen: In a regional collaborative effort, how important are federal policies?

Very Important | Important | Somewhat Important | Not Important

Question Eighteen: Do you agree that all or most of the factors are worth consideration in determining collaborative readiness? This is not to say that you would necessarily use all of them so much as to create a checklist and ensure that all factors are considered.

Agree | Disagree

Question Nineteen: Do you agree that the government specific factors are more useful in determining the decision to collaborate while the universal factors are for consideration of preliminary analysis in the collaborative ef fort?

Agree | Disagree | Do not Know

Please comment on your answer to question nineteen here or enter N/A.

Question Twenty: As a package, universal collaborative factors were viewed as either useful or useful with modifications. Do you agree?

Agree ○ Disagree ○

If you disagree to question twenty, please explain why here. Otherwise, enter N/A.

Question Twenty-One: As a package, government specific factors were viewed primarily as critical to useful.

Agree ○ Disagree ○

If you disagree to question twenty-one, please explain why here. Otherwise, enter N/A.

SECTION TWO - REGIONAL AUTHORITY SPECIFIC QUESTIONS.

Please consider the following regional authority questions. If you believe you have insuf ficient experience with the subject of any question, please skip to the next one.

Question 1: What circumstances dictate a regional authority as a desired collaborative model?

Question 2: Where there is a regional authority, would the collaboration factors be useful in the drafting, development , and construct of the authority? This is a step that would transpire prior to the selection of the members/board.

Yes	No	Do Not Know
○	○	○

Question 3: If you answered yes to question two, which of the noted factors do you believe would be useful in the drafting o r development of a regional authority/policy?

- [ ] Determine specific reasons for entities to collaborate. How will each organization benefit from the program?
- [ ] Identify known factors and barriers specific to the collaboration.
- [ ] Determining partner strengths and weaknesses
- [ ] Determine partner organization/agency interaction.
- [ ] Analyze the technical readiness of each potential partner .
- [ ] Determine how leadership will be structured within the collaborative project.
- [ ] Identify the current best practices associated with item to be addressed by the project.
- [ ] Is the collaboration based on a salient public issue for each participating agency?
- [ ] Prior to collaboration, determine available resources of each agency .
- [ ] Prior to the decision to collaborate, each agency/region/city needs to determine their opportunity costs for participating in the project.
- [ ] Each agency/region/city must determine the perception of risk in participating in the project.
- [ ] Prior to the decision to collaborate, determine the level of community influence for each agency/region/city and how the community reacts to the project.
- [ ] Each agency/city/region must determine their type of operational environment and how it would function in a collaborative project.
- [ ] Prior to the decision to collaborate, each agency/city/region must identify the severity of the problem for which the project is expected to correct/enhance.
- [ ] Prior to the decision to collaborate, each agency/city/region must identify its managerial capabilities and strength (weak, strong, etc.) as it relates to the project or project purpose.
- [ ] Prior to the decision to collaborate, each agency/city/region must identify their technical capabilities and strength as it relates to the project or project purpose.
- [ ] Prior to the decision to collaborate, each agency/city/region must identify the technical skill of the entities within the organization that will manage the ef fort as the agency representative.
- [ ] How important is Home Rule to the collaboration of multiple government agencies? Is it a factor in the decision to collaborate? Will it impact how the agency determines to build the collaboration?

Please add any comments that would help in understanding your answer to question 3 above.

Question 4: Do you agree that there are no “best practices” available for the establishment and administration of a regional authority?

Agree ◯ Disagree ◯ Unknown ◯

Please elaborate on your answer to question 4 here.

Question 5: How does a regional authority obtain resources, funds and cooperation?

Question 6: None of the universal factors were noted as being “very useful” to a regional authority type of collaboration. Do you agree?

Agree ◯ Disagree ◯ Unknown ◯

Question 7: Are regional authorities viewed as a collaborative effort or a government agency?

Yes ◯ No ◯ Unknown ◯

Question 8: The following six of the eleven government specific factors were noted as NOT being applicable to a regional authority. Check the ones for which you agree?

- ☐ Prior to the decision to collaborate, each agency/region/city needs to determine their opportunity costs for participating in the project.
- ☐

- [ ] Each agency/city/region must determine their type of operational environment and how it would function in a collaborative project.
- [ ] Prior to the decision to collaborate, each agency/city/region must identify the severity of the problem for which the project is expected to correct/enhance.
- [ ] Prior to the decision to collaborate, each agency/city/region must identify its managerial capabilities and strength (weak, strong, etc.) as it relates to the project or project purpose.
- [ ] Prior to the decision to collaborate, each agency/city/region must identify their technical capabilities and strength as it relates to the project or project purpose.
- [ ] Prior to the decision to collaborate, each agency/city/region must identify the technical skill of the entities within the organization that will manage the effort as the agency representative.
- [ ] How important is Home Rule to the collaboration of multiple government agencies? Is it a factor in the decision to collaborate? Will it impact how the agency determines to build the collaboration?

Question 9: If regional authorities worked with the local agencies in a more collaborative manner, do you believe they woild be more or less effective?

Much More	More	No Difference	Less	Much less
○	○	○	○	○

Question 10: In general, are regional authorities temporary or permanent?

Permanent	Temporary	Could be either one	Depends on situation dictating the authority.
○	○	○	○

Please elaborate on your answer to the above question .

Question 11: Do all regional authorities perform basic development prior to the installation of its governing board or after?

Prior to	After	Don't Know
○	○	○

Please elaborate on your answer to the above question here.

Question 12: Who is responsible for developing the structure/policy for a regional authority?

Question 13: In your opinion, how effective is a regional authority?

Very Effective	Effective	Somewhat Effective	Not Effective
○	○	○	○

Question 14: Should regional authorities include local agency representatives?

Yes	No	Do Not Know
○	○	○

Please elaborate on your answer to the above question.

Question 15: If regional agencies had a voice in a regional authority, do you believe it would increase the effectiveness of the regional authority?

Yes	No	Do Not Know
○	○	○

Please elaborate on your answer to the above question.

Question 16: In your opinion, are regional authorities the result of the lack of collaboration to address a specific problem in a region?

Yes ○ No ○ Do Not Know ○

Please elaborate on your answer to the above question.

SECTION THREE: FACTOR ANALYSIS

Factor U 1: Determine specific reasons for entities to collaborate. How will each organization benefit from the program?

Results: *75% of respondents agree that factor #U1 is critical to useful. However, 25% rated as useful but modifications would be necessary.*

Do you agree with the majority opinion for this assessment in respect to a regional collaboration?

Yes, agree with majority (75%) ○ No, agree with minority (25%) ○ Do Not Know ○

Do you agree with the majority opinion for this assessment in respect to a regional transit authority?

Yes, agree with majority (75%) ○ No, agree with minority (25%) ○ Do Not Know ○

Factor U 2: Identify known factors and barriers specific to the collaboration

Results: *75% rated as very useful. 25% rated as useful with modifications.*

Do you agree with the majority opinion for this assessment in respect to a regional collaboration?

Yes, agree with majority (75%) ○ | No, agree with minority (25%) ○ | Do Not Know ○

Do you agree with the majority opinion for this assessment in respect to a regional transit authority?

Yes, agree with majority (75%) ○ | No, agree with minority (25%) ○ | Do Not Know ○

Factor U3 : Determining partner strengths and weaknesses.

Results: *Determining partner strengths and weaknesses is important but the degree of importance varied. Where there is a regional transit authority, it was rated as being useful with modifications. Knowing what each agency brings to the project is helps. Having a diverse set of skills across the partner agencies and determining how they support the project is very useful. However, it is not useful in an environment where the public votes for the regional transit system.*

Do you agree with this assessment in respect to a regional collaboration?

Yes ○ | No ○ | Do Not Know ○

Do you agree with this assessment in respect to a regional transit authority?

Yes ○ | No ○ | Do Not Know ○

Factor U4 : Determine partner organization/agency interaction.

Results: *Where there is a regional transit authority, it was rated as not important as the one organization (regional authority)*

has to share information with is members. 75% rated somewhat important to very important.

Do you agree with this assessment in respect to a regional collaboration?

Yes ○ No ○ Do Not Know ○

Do you agree with this assessment in respect to a regional transit authority?

Yes ○ No ○ Do Not Know ○

Factor U5 : Analyze the technical readiness of each potential partner.

Results: *100% rated this as important. Where there is a regional authority, it was rated as somewhat important as technical readiness is obtained once joining he organization.*

Do you agree with this assessment in respect to a regional collaboration?

Yes ○ No ○ Do Not Know ○

Do you agree with this assessment in respect to a regional transit authority?

Yes ○ No ○ Do Not Know ○

Factor U6 : Determine how leadership will be structured within the collaborative project.

Results: *75% rated as important. Within that rating, 50% said it was critical. Where there is a regional transit authority, it is considered not important as leadership is voted within the members.*

Do you agree with this assessment in respect to a regional collaboration?

Yes ○ No ○ Do Not Know ○

Do you agree with this assessment in respect to a regional transit authority?

Yes ○ No ○ Do Not Know ○

Factor U7 : Identify the current best practices associated with item to be addressed by the project.

Results: *Where there is a regional authority, it is considered "not important" as each region is unique and therefore no "best practices" are available.* On this factor, the response was varied. 25% rated it somewhat important, 25% said it is very important and 25% noted is as essential.

Do you agree with this assessment in respect to a regional collaboration?

Yes ○ No ○ Do Not Know ○

Do you agree with this assessment in respect to a regional transit authority?

Yes ○ No ○ Do Not Know ○

Factor G1 : Is the collaboration based on a salient public issue for each participating agency?

Results: *Overall, considered critical to very useful.*

Do you agree with this assessment in respect to a regional collaboration?

Yes No Do Not Know

Do you agree with this assessment in respect to a regional transit authority?

Yes No Do Not Know

Factor G2 : Prior to collaboration, determine available resources of each agency.

Results: All considered this factor useful. Ratings ranged from *critical to useful with modifications.*

Do you agree with this assessment in respect to a regional collaboration?

Yes No Do Not Know

Do you agree with this assessment in respect to a regional transit authority?

Yes No Do Not Know

Factor G3 : Prior to the decision to collaborate, each agency/region/city needs to determine their opportunity costs for participating in the project.

Results: *75% rate this as very useful. Where this is a regional authority, it was considered not to have any value as opportunity cost are not a factor for an authority.*

Do you agree with this assessment in respect to a regional collaboration?

Yes No Do Not Know

Do you agree with this assessment in respect to a regional transit authority?

Yes ○ No ○ Do Not Know ○

Factor G4 : Each agency/region/city must determine the perception of risk in participating in the project.

Results: *75% considered very useful, however, 25% agreed that modifications were required. For a regional authority, the risk is whether the organization will be successful.*

Do you agree with this assessment in respect to a regional collaboration?

Yes ○ No ○ Do Not Know ○

Do you agree with this assessment in respect to a regional transit authority?

Yes ○ No ○ Do Not Know ○

Factor G5 : Prior to the decision to collaborate, determine the level of community influence for each agency/region/city and how the community reacts to the project.

Results: *100% considered this factor useful. Degree of usefulness ranged from somewhat useful to critical. 50% noted it as being critical. For a regional authority, it is considered critical as polling is necessary to determine the probable outcome of the organization.*

Do you agree with this assessment in respect to a regional collaboration?

Yes ○ No ○ Do Not Know ○

Do you agree with this assessment in respect to a regional transit authority?

Yes No Do Not Know

Factor G6 : Each agency/city/region must determine their type of operational environment and how it would function in a collaborative project.

Results: *75% noted as very useful. Where there was* a regional authority, it was noted as not being required as majority rules within the organization.

Do you agree with this assessment in respect to a regional collaboration?

Yes No Do Not Know

Do you agree with this assessment in respect to a regional transit authority?

Yes No Do Not Know

Factor G7 : Prior to the decision to collaborate, each agency/city/region must identify the severity of the problem for which the project is expected to correct/enhance.

Results: *50% noted as being useful with modifications, 25% noted as very important and 25% rated as not essential. If the agency is a regional authority, it fell into the not essential category.*

Do you agree with this assessment in respect to a regional collaboration?

Yes No Do Not Know

Do you agree with this assessment in respect to a regional transit authority?

Yes ○ No ○ Do Not Know ○

Factor G8 : Prior to the decision to collaborate, each agency/city/region must identify its managerial capabilities and strength (weak, strong, etc.) as it relates to the project or project purpose.

Results: *50% noted as being very useful, 25% noted as critical and 25% rated as not essential. If the agency is a regional authority, it fell into the not essential category, as there is no interactivity between the authority and regional agencies.*

Do you agree with this assessment in respect to a regional collaboration?

Yes ○ No ○ Do Not Know ○

Do you agree with this assessment in respect to a regional transit authority?

Yes ○ No ○ Do Not Know ○

Factor G9 : Prior to the decision to collaborate, each agency/city/region must identify their technical capabilities and strength as it relates to the project or project purpose.

Results: *50% noted as being very useful, 25% noted as critical and 25% rated as not essential. If the agency is a regional authority, it fell into the not essential category as there is no interactivity between the authority and regional agencies.*

Do you agree with this assessment in respect to a regional collaboration?

Yes ○ No ○ Do Not Know ○

Do you agree with this assessment in respect to a regional transit authority?

Yes No Do Not Know

Factor G10 : Prior to the decision to collaborate, each agency/city/region must identify the technical skill of the entities within the organization that will manage the effort as the agency representative.

Results: *50% noted as being very useful, 25% noted as critical and 25% rated as not essential. If the agency is a regional authority, it fell into the not essential category as there is no interaction between the authority and regional agencies.*

Do you agree with this assessment in respect to a regional collaboration?

Yes No Do Not Know

Do you agree with this assessment in respect to a regional transit authority?

Yes No Do Not Know

Factor G11 : How important is Home Rule to the collaboration of multiple government agencies? Is it a factor in the decision to collaborate? Will it impact how the agency determines to build the collaboration?

Results: *Home Rule is considered a factor in 75% of the vote; however, it ranged from useful w/modifications to critical. Where there was a regional authority, it was determined as not being useful as it is an independent authority.*

Do you agree with this assessment in respect to a regional collaboration?

Yes No Do Not Know

Do you agree with this assessment in respect to a regional transit authority?

Yes No Do Not Know

SECTION FOUR- Please comment on your thoughts as they relate to this collaborative readiness factors for regional transportation project and your experience. Your thoughts are welcome and encouraged.

APPENDIX F: Request for Human Subjects Approval

EASTERN MICHIGAN UNIVERSITY

Education First

June 22, 2013 **UHSRC Initial Application Determination: EXPEDITED APPROVAL**

To: **Ms. Carol Farver**
Technology Studies

Re: **UHSRC #130601** **Category: Approved Expedited Research Project**
Approval Date: **June 20, 2013**

Title: **Determining the Degree of Collaboration Readiness for Regional Transportation Systems: The Formulation of a Model**

The Eastern Michigan University Human Subjects Review Committee (UHSRC) has completed their review of your project. I am pleased to advise you that **your expedited research has been approved** in accordance with federal regulations.

Renewals: Expedited protocols need to be renewed annually. If the project is continuing, please submit the **Human Subjects Continuation Form** prior to the approval expiration. If the project is completed, please submit the **Human Subjects Study Completion Form** (both forms are found on the UHSRC website).

Revisions: Expedited protocols do require revisions. If changes are made to a protocol, please submit a **Human Subjects Minor Modification Form** or new **Human Subjects Approval Request Form** (if major changes) for review (see UHSRC website for forms).

Problems: If issues should arise during the conduct of the research, such as unanticipated problems, adverse events, or any problem that may increase the risk to human subjects and change the category of review, notify the UHSRC office within 24 hours. Any complaints from participants regarding the risk and benefits of the project must be reported to the UHSRC.

Follow-up: If your expedited research project is not completed and closed after three years, the UHSRC office will require a new **Human Subjects Approval Request Form** prior to approving a continuation beyond three years.

Please use the UHSRC number listed above on any forms submitted that relate to this project, or on any correspondence with the UHSRC office.

Good luck in your research. If we can be of further assistance, please contact us at 734-487-0042 or via e-mail at gs_human_subjects@emich.edu. Thank you for your cooperation.

Sincerely,

Jennifer K. Fritz

Dr. Jennifer Kellman Fritz
Faculty Chair
University Human Subjects Review Committee

University Human Subjects Review Committee · Eastern Michigan University · 200 Boone Hall
Ypsilanti, Michigan 48197
Phone: 734.487.0042 Fax: 734.487.0050
E-mail: human.subjects@emich.edu
www.ord.emich.edu (see Federal Compliance)

The EMU UHSRC complies with the Title 45 Code of Federal Regulations part 46 (45 CFR 46) under FWA00000050.